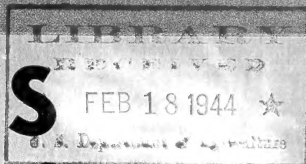


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KELLER'S

Garden Annual-1944

GEO. KELLER & SONS, QUINCY, ILL.
909 Maine Street

With a
**COMPLETE
PLANTING
GUIDE**
for Home Gardens

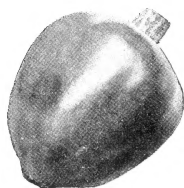


You can count on us, neighbor!

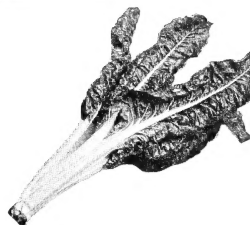
This "Garden Annual" of ours is a different kind of seed catalog.

First of all, it's a neighborly book that doesn't just list merchandise for sale, but devotes many pages to helping you with your garden. As you'll see, we've crowded our book with good, sensible gardening information (the most complete you'll find in any seed catalog).

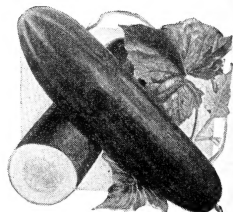
Second, this book comes to you from a seedsman who is right in your own territory . . . who knows your garden needs as only a neighbor can. We're here the year round—and always ready and willing to help, in every way we can.



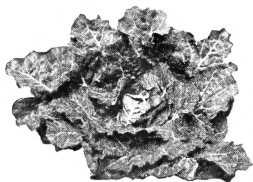
PEPPER, Pimiento—Smooth, heart-shaped fruit, 3½ in. long; dark green, changes to crimson; exceptionally thick flesh, sweet, mild. Ideal for canning. 73 days.



SWISS CHARD, Lucullus—A superb table green. Rich green, heavily crumpled leaves. Creamy white, edible stems are about as large as Rhubarb—and as tasty. 50-60 days.



CUCUMBER, Long Green—A general purpose cucumber, equally good for slicing and for pickling. Fruit 10 to 12 in. long, rich, dark green. 70 days.



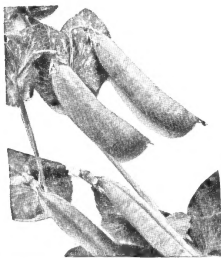
COLLARD, Georgia or Southern—Favorite of winter "greens." Grows to 2 ft., forming large, loose heads of succulent leaves on long stem. 24 to 36 days.

World's greatest bargain — HOME GROWN VEGETABLES

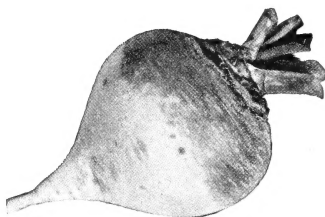
You get dollars for pennies, with a lot of healthy fun thrown in free, when you grow your own vegetables! Where else can you get so much for so little?

And besides, no vegetables you buy at the store ever taste so good

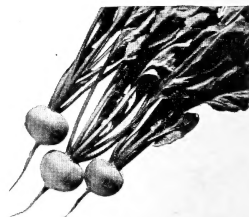
— or are so good for you. Because vegetables begin to undergo a profound change, almost as soon as they're picked. Inevitable natural processes quickly alter their flavor, texture, vitamin content. That's why there's no substitute for garden-fresh vegetables.



PEAS, Thomas Laxton—Very good early wrinkled variety. Vigorous vines grow to 3 ft. Pods about 4 in. long, filled with tender peas that retain flavor. 57 days.



RUTABAGA (or Swede Turnip), American Purple-top—A fine keeper. Large, smooth, globe-shaped roots; sweet, fine-grained, yellow flesh. Also used for stock feeding. 88 days.



BEEETS, Crosby Egyptian—An early, attractive variety popular both for market and home gardens. Medium tops. Root is bright red. 60 days.

GEO. KELLER & SONS

909 Maine Street, QUINCY, ILLINOIS

Date _____, 194_____

Enclosed, find \$_____for which ship merchandise named below

By express ☐ By freight ☐ By mail ☐ Best way ☐
(Check which you prefer)

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(All members of one family please order under one name)

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**SHOP AT OUR
STORE or by Mail**

**Three convenient ways to
buy here! Shop at our store
... or mail your order ...
or telephone it, whichever is
the most convenient for you.**

(If you find we're a bit rushed during the busy season, remember there are now three times as many home gardeners as there were before the war. And help is scarce!)

[illegible]

All gardeners of experience know that success with bulbs, etc., depends largely on weather conditions and proper cultivation, so in accordance with the universal custom of the seed trade we give no warranty, express or implied, as to the productiveness

of any seeds, bulbs or plants we sell and will not be in any way responsible for the crop. Our liability, in all instances, is limited to the purchase price of the seed, bulbs or plants.

Garden Guideposts

The answers to your questions

Now that just about every family is "growing its own," there's a universal need for good, practical gardening information. So this spring, instead of issuing just the usual kind of seed catalog, we are making every possible effort to fit our book to the special needs of these times.

As you will find, throughout the pages of this book, we are giving you a great deal more in the way of helpful everyday gardening information. Under the "Garden Guidepost" headings, we have assembled the answers to most of the questions that home gardeners commonly ask. We have aimed to give you in very compact form,

the necessary essentials . . . the "musts" of home gardening.

For new gardeners

For gardeners of limited experience this data clears up just about all of those critical points that need special attention. In the shortest and simplest possible form, it presents the basic moves that mean the difference between success and failure.

For veterans

Experienced gardeners may not need some of the information given here. But we think that even the most seasoned veterans will find that our "Guideposts" give them many handy reminders.

First of all—THE SITE AND THE PLAN

These are the six points to keep in mind when you select your site:

1. Locate the garden near your house, if possible, to conserve your time and energy.
2. Six hours of full sunlight are needed for vegetables and some flowers.
3. Keep garden site away from tree roots. They will rob your plants of moisture and plant food.
4. Make sure your soil is right—neither too acid nor too alkaline, and not lacking minimum requirements of essential growth elements—nitrogen, phosphorous, potash.

Most vegetables, annual flowers, and border perennials do best in soil that is not very acid.

If you're not certain about your soil, a very simple, inexpensive soil-test kit will enable you to make the necessary tests.

5. Be sure there is ample drainage. If there is insufficient slope for natural drainage, place drain tile well below the surface to carry off excess moisture.

6. A gentle slope toward the south means an earlier garden; a northerly slope exposes growing plants to chilling winds and means a later-maturing garden.

Make a garden plan



To get the most out of your garden, make a complete plan on paper, and keep it as a record to check against in succeeding years.

The right kind of garden plan gives you all these advantages:

1. A succession of fresh vegetables in pleasing variety throughout the season.

2. A succession of bloom in the flower department.

3. A great saving of time and energy, by knowing just what and when to plant, and when to expect to harvest each crop.

4. Seed saved, by knowing just how much you will need.

5. Full use of every foot of soil by succession and companion cropping.

6. A chance to rotate crops on a scientific basis to improve yield and reduce disease and plant infestation.

How to plan your vegetable garden

Every garden must be planned individually. What you plant in it and how you schedule your planting will be governed by—

- (a) the area and kind of soil available,

- (b) the personal tastes of your family,

- (c) and the supply of fresh vegetables on the local market.

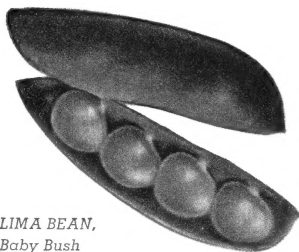
In other words, there is no sense in planting corn if you have only wet, heavy soil; or in planting collards if no one in your family likes this succulent green; or in planting rows of carrots if your space is limited and they are abundant and cheap in your community.

Here are a few guideposts to read before setting your plan on paper:

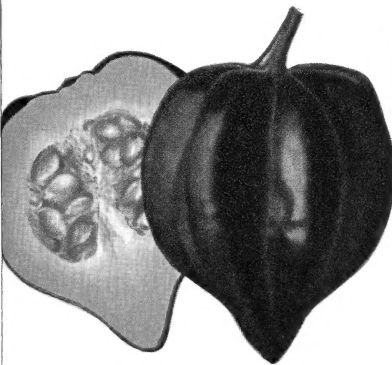
1. Where space is limited, plant more of the small, quick-maturing, highly perishable and highly protective vegetables (rich in vitamins and minerals)—such as lettuce, spinach, Swiss chard, endive, tomatoes, green beans—which are to be used fresh and picked frequently.

(Continued on Page 7)

MUSKMELON, Hale's Best No. 36

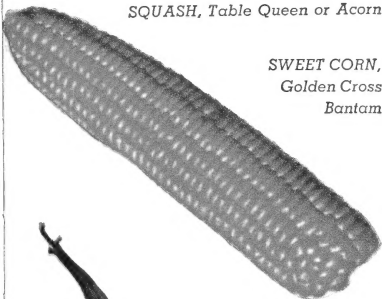


LIMA BEAN, Baby Bush



SQUASH, Table Queen or Acorn

SWEET CORN, Golden Cross Bantam



BEANS, String-less Green Pod

Approved

VEGETABLE SELECTIONS

CHOSEN FROM THE THOUSANDS OF AVAILABLE
VARIETIES AS THE BEST FOR QUALITY AND YIELD

BEANS

Green Podded, Dwarf or Bush

Large Packet, 10c

Black Valentine Stringless—Hardy, early maturing, very productive. Pods, dark green, 6-6½ inches long, brittle, smooth, stringless. Seeds black. 51 days.

Bountiful—An early, heavy-yielding variety. Flat, light-green, stringless, slightly fibrous. 49 days.

Dwarf Horticultural—Late, heavy yielding. Flat green pods, 5-in. long. Fine for snap and green-shell purposes, as well as dried. Light buff seeds spotted red. 65 days.

Giant Stringless Green Pod—Large, sturdy plants. Meaty, round pods, brittle, strictly stringless. Medium green pods. Oval, yellowish-brown seed. 54 days.

Plentiful—Productive, early. Flat, medium green pods, 6 to 7-in. long, strictly stringless. Choicest quality. All-America Bronze Medal 1939. 51 days.

Stringless Green Pod—Early, sturdy. Very meaty, round, fully stringless and fibrous. 50 days.

Tendergreen—Large, erect plants. Abundant, round, dark-green pods, strictly stringless and fleshy. 54 days.

Wax Podded, Dwarf or Bush Varieties

Large Packet, 10c

Golden Wax—A home garden favorite. Small, erect plants, moderately productive. Straight, thick, flat pods, yellow, stringless. 51 days.

Pencil Pod Black Wax—Early and productive. Rich yellow, deep curved round pods. 5½ to 6-in. long. Always stringless, tender, brittle and fleshy. 52 days.

Round Pod Kidney Wax or Brittle Wax—Large, erect, vigorous plants. Medium yellow curved pods, crease-backed, entirely stringless, very brittle, fleshy and succulent. 58 days.

Pole Beans

Large Packet, 10c

Kentucky Wonder—Strong climber, hardy, long-bearing. Curved, almost round pods. Slightly stringy, but brittle and fibrous. Meaty. 65 days.

Kentucky Wonder Wax—Very popular. Vigorous, good climbing plants, waxy-yellow pods, flat and nearly stringless. Somewhat fibrous but meaty. 68 days.

London Horticultural—For use as a snap and green shell bean. Oval pods 6-in. long, stringless. Very fleshy. 70 days.

Lima Beans, Dwarf or Bush

Large Packet, 10c

Baby Potato—1940 All-America. Small, thick-seeded butter bean with real flavor, early maturity and prolific growth. 12 to 16-in. tall. 72 days.

Burpee's Bush—Medium large plant. Pods contain three to four large seeds of excellent quality. 77 days.

Fordhook Bush—Straight pods with plump, large beans, excellent quality. 75 days.

Henderson's Bush—Known as Baby Lima or Butter Bean. Plants small, early and bushy. 65 days. Very productive.

Lima Beans, Pole

Large Packet 10c

King of the Garden—Flat, smooth pods with four or five white, large, flat beans. 88 days.

Small Sieva—Plant 10 to 12-ft. tall, and bears over a long season. Medium green pods with three to four beans of excellent quality. 77 days.

BEETS

Packet, 10c

Crosby's Egyptian—Extra early. Flattened globe shaped roots with small dark red tap root. Excellent quality, tender, sweet. 60 days.

Detroit Dark Red Perfected—Standard of excellence in table beets. Smooth, globular roots of deep ox-blood red—sweet, tender. 68 days.

Early Wonder—Early variety that can also be used for fall planting. Semi-globular, tender, blood-red flesh. 58 days.

Stock Beets or Mangel Wurzel—See Mangel Wurzel.

BROCCOLI

Italian Green Sprouting—Plant bears a succession of sprouting heads about 5 in. long, which, if kept cut, will be replaced by others for 8 to 10 weeks. 55 to 65 days. Pkt. 10c.

BRUSSELS SPROUTS

Half Dwarf Improved—Firm, thick-set balls—1½-in. in diameter. 70 days. Large pkt. 10c.

CABBAGE

Yellows Resistant Varieties

Packet 10c

Golden Acre—Extra early Copenhagen type. Dwarf plants, small round solid, 6-in., 3-lb. heads. 63 to 65 days.

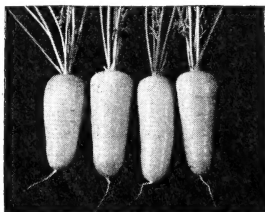
Marion Market—Large, firm, round heads, used for early kraut. A development from Copenhagen Market. 7-in., 4-lb. heads. 75 to 80 days.

Especially RECOMMENDED

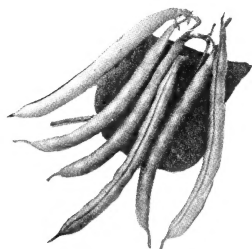
CARROT

Danvers Half-Long

Popular main-crop or late carrot of brilliant orange color. Roots are smooth, 6 to 7 in. long, tapering to blunt point. Flesh is tender, sweet, crisp.



CARROT, Danvers Half Long



BEAN, Tendergreen

A distinctly superior stringless, green-podded bush bean. Pods are rich dark green, meaty, smooth, very tender and finely flavored—about 6 to 7 in. long. Strong, vigorous, prolific vines. Early.

All Vegetable Seeds
10c PER PACKET
UNLESS OTHERWISE NOTED

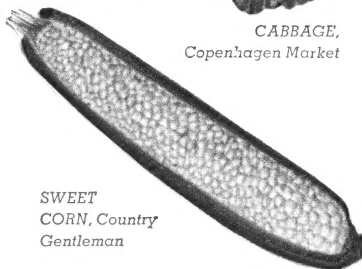
In bulk quantities at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.

Garden Guideposts

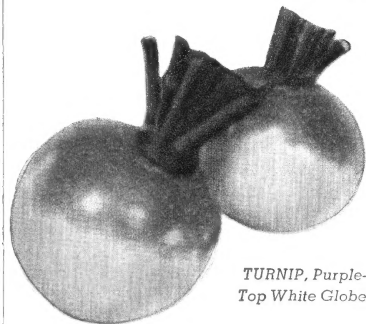
CARROT,
Imperator



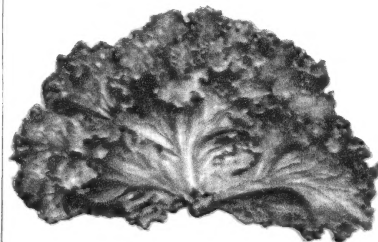
CABBAGE,
Copenhagen Market



SWEET
CORN, Country
Gentleman



TURNIP, Purple-
Top White Globe

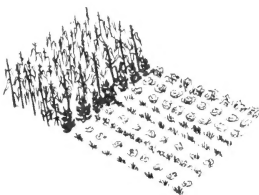


LETTUCE, Grand Rapids

How to plan

(Continued from Page 5)

2. On the farm, white potatoes, sweet corn, pumpkins and squash may be grown with the field crops, leaving the garden for the more perishable vegetables and those requiring careful cultivation.



3. Tall-growing crops should be placed on north or west side so they will not shade the low ones.

4. Crops which remain in the garden throughout the entire growing season (parsnips, salsify, parsley, tomatoes, peppers, onions from seed) should be located where they will not be disturbed.

5. Root and cole crops thrive in heavy soil. (Cole crops include cabbage, broccoli, cauliflower, kohlrabi.)

6. In warm, loose soil plant sweet corn, beans, tomatoes.

7. Perennial vegetables — such as small fruits, asparagus, rhubarb, and horseradish—should be placed at one side or end of the garden so they will not interfere with plowing and cultivation.

8. Put vine crops at one side or end so as not to overrun smaller crops. (Or, if hand cultivating, you can interplant melons, pumpkins, squash, cucumbers with corn.)

9. Allow a liberal surplus for canning and storing. Now, more than ever, you will want to can pees, beans, tomatoes, corn, etc. You can store for winter use beets, carrots, turnips, cabbage, squash.)

10. Make full use of the area all season by succession cropping and companion cropping. (See Page 10.)

Making the layout

Take a piece of paper — big enough so you can put in all the information you need. (An easy-to-figure scale is $\frac{1}{4}$ inch on the paper to 1 foot in your garden.) Begin by making a rough diagram.

Now, with this rough sketch as a guide, and with a list of the vegetables that your family likes and that you have decided you can grow in your plot, you're ready to begin mapping the actual planting. (See page 10 for specific ideas.)

CAUTION: If your plot is on a slope, don't run rows up and down hill or precious topsoil and seeds will wash away. On nearly level

ground, run rows the long way of the area if you are going to cultivate by horse or motive power.

When and where to plant

In mapping your planting plan you'll need to know when to plant, how deep, how far apart, when the different vegetables mature, etc. All this information you will find on page 16.

List your needs and shop early

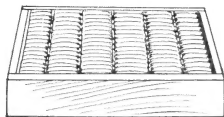
When your plan is complete, make up your list of seeds, plant food, insecticide, etc., and come in early. We'll help all we can. You know, we're just as anxious as you are that your garden shall be a success, and we'll do our part by supplying good seeds and all the other things you need to do a good job. (But remember, under present-day conditions, all good seed stores are extremely rushed during the planting season.)

Get an early start

It is most desirable to start tomatoes, cabbage, cauliflower, kohlrabi, peppers and certain other crops in flats or hotbeds six to eight weeks before the weather is suitable for transplanting into the garden.

Any gardener can do this. You don't need expensive or elaborate structures, and you can make them yourself.

How to make a seed flat



Make a shallow wooden box about 3 inches deep, and something like 12 inches wide and 18 inches long. Just fairly sturdy construction will do. Allow $\frac{1}{8}$ to $\frac{1}{4}$ -inch cracks between the bottom boards to provide good drainage.

Fill with good garden soil, placing about 1 inch of coarser material in the bottom and filling balance with fine, sifted soil. Firm well along edges, add more sifted soil and level off.

Sow seeds in furrows 2 inches apart and about $\frac{1}{4}$ to $\frac{1}{2}$ inch deep. Cover with sifted soil or clean sand. Smooth and firm well.

Water thoroughly, but gently so as not to wash out any seed.

Place in a warm spot — about 70°F.

Put a piece of burlap or muslin over the box to hold moisture in the soil. It will hasten germination. Remove cover as soon as the plants start to come up.

(Continued on Page 9)

CABBAGE (Continued)

Wisconsin All Seasons—Mid-season all-purpose variety, slightly coarser than standard All Seasons. 10 to 12-in., 9 to 10-lb. heads. 90 to 95 days.

Wisconsin Hollander—Late, excellent for winter storage and kraut. Similar to Hollander and Danish Ball Head. 7 to 8-in., 7 to 9-lb. heads. 100 to 110 days.

Standard Early Varieties

Packet, 10c

Copenhagen Market—Excellent, early short season type. Short stems, 6½-in., 3½ to 4-lb. heads. 65 to 70 days.

Early Jersey Wakefield—Pointed heads, small and firm. Earliest pointed variety. Plants compact. 62 days.

Late or Winter Varieties

Packet, 10c

Danish Ball Head or Hollander—A widely used late type. Deep, round, hard, compact heads, 7 to 8-in., 6 to 7-lb. Tender, crisp, fine for kraut. 100 to 105 days.

Perfection Drumhead Savoy—Heads round, hard, compact. Leaves deep green, coarsely crimped, dark green. Keeps well. 90 days.

Premium Late Flat Dutch—Extremely large, flat heads, 6½ to 7-in. deep. High quality, 10 to 11-in., 9 to 11-lb. heads. 95 to 105 days.

Red Varieties

Packet, 10c

Mammoth Red Rock—Best of the red cabbages. Hard, round. Purplish-red heads. Good keeper, 6 to 8-in., 7 to 8-lb. heads. 100 days.

CHINESE CABBAGE

Chihili or Improved Pekin—Dependable, early. Solid, tapered heads, 3 to 4-in. thick, 18 to 20-in. long. 75 days. Pkt. 10c.

CARROTS

Packet 10c

Chantenay, Red Cored—Root has thick shoulder and tapers to slight stump root, 5-in. long. Red cored. 70 days.

Danvers Half Long—Sweet, tender roots, 6 to 7-in. long tapering to a blunt point. Fine for storing. 75 days.

Imperator—Fine-grained, tender. Rich orange, indistinct core. Smooth, tapered to semi-blunt. 77 days.

Nantes Improved Coreless—Excellent for forcing. Tops small, roots bright orange, blunt ended. Flesh reddish orange and practically coreless. 70 days.

Oxheart—Excellent for shallow soil, easy to harvest. Chunky, heart-shaped. Tender and sweet, bright orange. Keeps well. 72 to 75 days.

CAULIFLOWER

Snowball—Favorite early variety. Pure white compact heads of fine flavor, 6 to 7-in. 55 days. Pkt. 25c.

CELERIAC

Giant Smooth Prague—(Turnip rooted celery). Smooth spherical roots. 2 to 3-in. thick. 120 days. Pkt. 10c.

CELERY

Packet 10c

Giant Pascal—Late variety for winter use. Large plant, dark green leaves. Big solid stalks that blanch to yellow white. 135 days.

Golden Self Blanching, Dwarf—Compact plants, yellowish green foliage. Broad solid stalks, nutty flavor. Blanchers readily. 120 days.

Wonderful or Golden Plume—Early, medium plant with compact, full heart. Blanchers easily to golden yellow. 112 to 115 days.

COLLARD

Southern or Georgia—An excellent cooked green. Long stemmed plant, with clustered leaves. Withstands heat and bad soil. 24 to 36 days.

SWEET CORN

Hybrids

Large Packet 10c

We offer Hybrid Sweet Corn varieties known and grown the country over—the finest that can be procured anywhere. We list here only a few of these choice kinds. Whatever your needs or your preference, be sure we can supply you with the kind of corn you want.

All Vegetable Seeds 10c PER PACKET UNLESS OTHERWISE NOTED

In bulk quantities at money-saving prices. Special quotations to market gardeners. Prices subject to change without notice.

Talk it over with us. Let us help you to increased yields and increased enjoyment.

Golden Cross Bantam—Extremely uniform. Ears 10 to 14 rows, slightly lighter yellow than Golden Bantam. Highly resistant to Stewart's disease. 76 days.

Joana—1940 All-America. Ears 7½ to 8-in., well filled with 12 or 14 rows of deep, medium narrow, light yellow kernels. Highly resistant to drought and bacterial wilt. 67 days.

Marcross—An early wilt-resistant yellow hybrid, producing deep golden yellow kernels 7 days earlier than Golden Bantam. Ears 6 to 7-in. long, with 12-14 rows of large sweet kernels. 73 days.

Open-Pollinated

Large Packet, 10c

Bantam Evergreen—A cross of Golden Bantam on Stowell's Evergreen. 14 to 18 rows. Deep, rich golden kernels, tender, sweet. 90 days.

Country Gentleman or Shoe Peg—Prolific late variety. Favored by canners. Irregular kernels, very deep, slender, sweet. 93 days.

Golden Bantam—The best and most favorably known of all the yellow varieties. Stalks often have 2 ears. Ears 8 rowed, kernels broad, with tender hull, sweet and of very fine flavor. 80 days.

Stowell's Evergreen—White. Large ears about 8-in. long; big kernels, very sweet. One of the best late varieties. 95 days.

POP CORN

Giant Yellow—Large, late yellow variety with golden kernels, creamy white when popped. Ears 8 to 9-in.

CRESS

Curled or Pepper Grass—Grows very quickly. Use for flavoring salads, for garnishing, or as a green in sandwiches. Has an agreeably pungent taste. Best if used when young. 40 days. Pkt. 10c.

CUCUMBER

A and C—A long dark green cucumber which merits a trial. Uniform, nearly cylindrical, well rounded at ends.

Davis Perfect—Midseason. 9 to 10 in. long, tapered both ends, good color. 68 days.

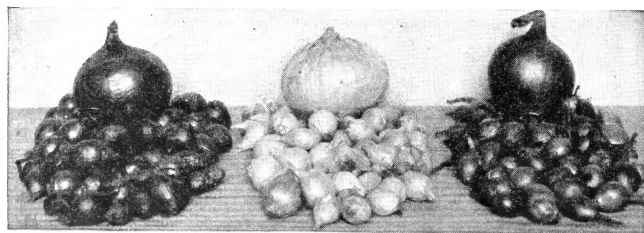
Early Fortune—Rich, dark green fruits with firm, crisp, pure white flesh. Grows to 9 by 2½-in. Ships well, and is highly resistant to disease. 66 days.

Long Green—Black spined, good pickling. Grows 10 to 15 in. long. 70 days.

Pickling—Even size, square ended; 7-in. long and 2½-in. thick. Disease resistant. Dark green. Very productive.

Straight Eight, w.s.—Unsurpassed as slicing cucumber. All-America Selection. 2½-lb. fruits, rounded at ends, medium green. 68 days.

Especially RECOMMENDED



Grow Onions from Sets

For the home gardener, growing onions from sets saves labor, makes good results more certain, gives you onions ready to use (as green onions) in 2 to 3 weeks and mature onions about a month earlier than those grown from seed.

Plant as soon as ground can be worked. Set in 12-in. drills, about 3 in. apart, and covered lightly. Cultivate well and fertilize. When ready for use, pull every other onion in the row, allowing balance to mature.



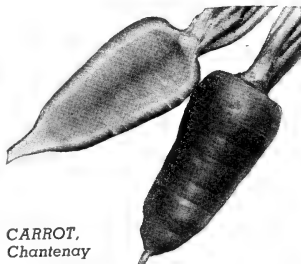
WATERMELON,
Dixie Queen



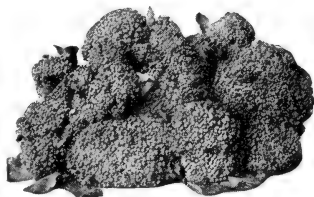
CABBAGE,
Chinese Chihili



CABBAGE,
Perfection Drumhead Savoy



CARROT,
Chanteney



BROCCOLI, Italian Green Sprouting

Garden Guideposts

Making a seed flat

(Continued from Page 7)

After the plants come through the soil, water only in morning. Do not keep soil too wet.

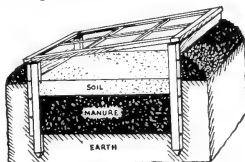
Thin out plants, or transplant them into another box or cold-frame, when 2 inches high.

How to make a hotbed

There are two kinds of hotbeds that will serve well for starting early plants.

1. THE MANURE-HEATED HOTBED

—Locate this near a building to provide protection on north and west sides against cold winds, facing south to receive maximum sunlight.



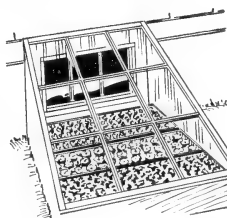
Dig a pit 24 inches deep, 6 feet wide, and as long as needed. (A single-sash hotbed is large enough for a medium-sized garden. As a standard sash is 3 by 6 feet, a single-sash hotbed would be 3 feet by 6 feet.)

Construct a frame of 2-inch planks made so the sash just covers it. Build the north side 6 inches higher than the south side so the sash will slope toward the south.

Place 12 to 18 inches of prepared, fresh, strawy horse manure in the bottom of the pit and firm; then place 6 inches of fine garden soil on top of the manure. Allow to heat for 2 or 3 days.

After the temperature has fallen below 90°F., sow the seed 3 to 6 inches apart and place sash on the frame.

Ventilate during the day, closing sash on very cold nights to prevent freezing. (In severe weather place old carpets, blankets, or salt hay over the glass.)



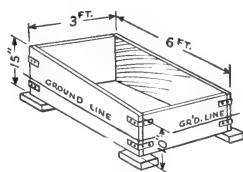
A BASEMENT WINDOW HOTBED

—Place one or two standard sash on a frame built in front of a south- or southeast-facing basement window. (See illustration.) Make the structure as airtight as possible.

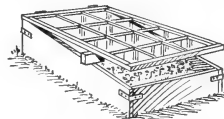
Open the basement window to circulate warm air through the hotbed, provide heat and continuous ventilation.

Use seed boxes or flats in operating a basement window hotbed.

Coldframes



A coldframe is valuable when transplanting plants from seed flats or hotbed, before planting in the garden. Coldframes are constructed like hotbeds except that no manure is used to provide heat. They depend entirely on the sun for heat, which accumulates under the cover in the daytime to keep the frame warm through the night.



Preparing the soil

The basis of garden success is the soil. Usually we have to work with what we have, but even if it is not good soil to begin with, much can be done to improve it.

The ideal soil has 4 definite qualities:

- (a) it is easy to work (crumbles readily);
- (b) it contains plenty of humus (partially rotted vegetable matter);
- (c) it has sufficient quantities of available plant food;
- (d) it is well-drained.

If yours is not ideal soil, here are some things you can do:

If soil is too "heavy"

Heavy soil, which will bake hard and not drain properly, can be made friable (crumbly, loose) by working in old ashes, fine cinders, humus, fine gravel or fine limestone screenings. This will make the soil workable as well as letting excess water escape, admitting air into the soil, and permitting roots to grow freely.

If soil needs conditioning

If your soil needs improving, it can be greatly benefitted by application of well-rotted stable manure, leaf mold, grass clippings, compost and other forms of decomposed plant material. (Use up to 1 bu. per 25 sq. ft.) See Page 30 for data on building a compost pile.

(Continued on Page 11)

PLANTING for SUCCESSION CROPS

The Secret of Maximum Production

Whatever the size or location of your garden plot, you can get much more out of it if you make the right use of succession and companion crops.

Planning for a steady succession of crops from each row is really a very simple matter of timing. The sample plan at the right demonstrates the principles of this important idea.

The rows shown in black (first planting) are—

- (a) **Early crops**, which, when harvested, are followed by later crops. (In the 3rd row, for instance, cabbage is planted early in April and harvested in July to make room for late beets.)
- (b) **Crops which remain in the garden** (snap and lima beans, peppers, etc.).

The rows shown in red are—

- (a) **Succession crops** that are planted in the same space after the early crops are harvested (fall spinach after onions, winter squash after early beets, etc.).
- (b) **Companion crops** or quick-maturing crops interplanted with slow-maturing crops (onion sets or lettuce, for example, planted between the young tomato plants will be harvested before the tomato vines require the entire space).

THE FACTS YOU NEED

Following each vegetable listing in this catalog you will find the term of maturity, so you will know how to space your plantings in the matter of time.

On page 16 you will find a chart to guide you in spacing between plants, between rows, amount of seed required, etc. With this information you are ready to map out a garden that will make full use of every foot of space.

Below are other suggested plans. You can, of course, work out variations of your own—which will completely fit your own preferences and space limitations.

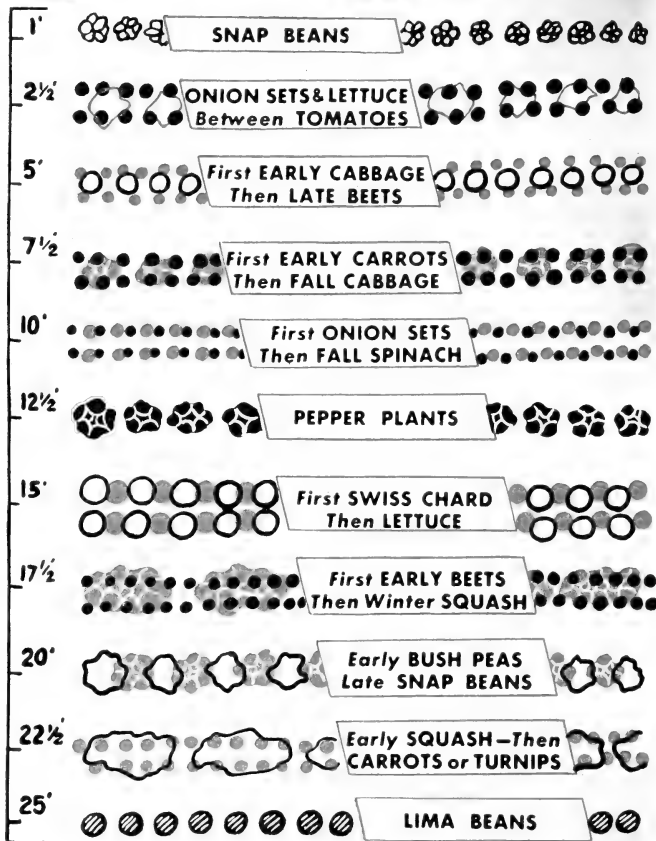
PLAN NO. 2

Row No.

- | | |
|-----------------|--|
| 1 Mustard | } Plant early in space
later required by
spreading squash
vines, row 3. |
| 2 Garden Cress | |
| 3 Summer Squash | |
| 4 Spinach | } Plant early in space
later required by
spreading squash
vines, row 3. |
| 5 Spinach | |

FIRST PLANTING

SECOND PLANTING



Row No.

- 6 Beans—Lima or Green Soy
- 7 Bush Beans followed by late Lettuce
- 8 Bush Beans followed by Cauliflower
- 9 Bush Beans followed by Cauliflower
- 10 Late Peas followed by late Cabbage
- 11 Midseason Peas followed by late Cabbage
- 12 2nd early Peas followed by Rutabagas
- 13 1st early Peas followed by Brussels Sprouts
- 14 Carrots, Radishes, followed by Kohlrabi
- 15 Early Beets followed by Carrots, Radishes
- 16 Lettuce followed by late Beets
- 17 Kohlrabi followed by Endive

PLAN NO. 3

Row No.

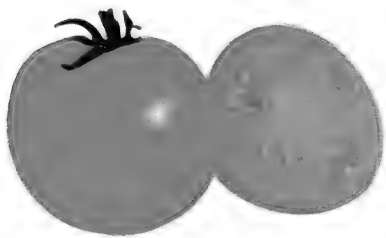
- 1 Radishes followed by Sweet Corn
- 2 Green Onions followed by Sweet Corn
- 3 Tomatoes interplanted with Peas
- 4 Tomatoes interplanted with Peas
- 5 Early Cabbage followed by Turnips
- 6 Beets followed by Cabbage
- 7 Potatoes or Onion Sets
- 8 Carrots followed by Bush Beans

PLAN NO. 4

- 1 Sweet Corn
- 2 Radishes followed by Sweet Corn
- 3 Tomatoes interplanted with Lettuce
- 4 Early Peas . . . mid-season Peas . . . late Peas (½ row each, planted at 2-week intervals)
- 5 Early Cabbage followed by Turnips
- 6 Beets followed by Cabbage
- 7 Carrots followed by Bush Beans



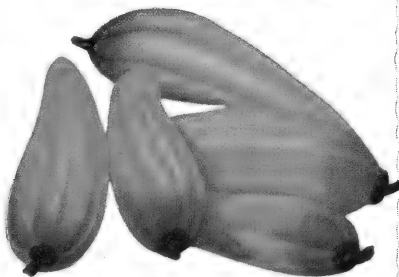
CABBAGE, Early Jersey Wakefield



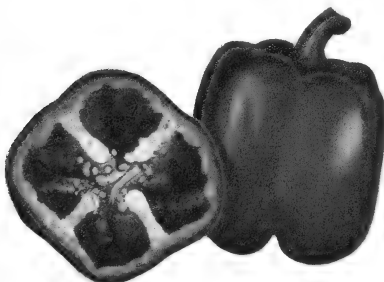
TOMATO, Rutgers



PEAS,
Laxton's Progress



SQUASH,
Early Prolific Straightneck



PEPPER, California Wonder

Garden Guideposts

Preparing the soil

(Continued from Page 9)

When breaking new sod, if there are weeds or sod on the ground, apply lime and fertilizer to hasten decomposition, then turn under. These materials should be worked into the soil. They help to hold moisture, aid in drainage, prevent rapid changes in soil temperature, and are a source of food for soil bacteria and other microorganisms which work in the soil to liberate nutrients for plants.

Apply these materials before plowing or spading.

Note, too, that when you put fertilizer into newly spaded soil, it must be thoroughly worked in, so as to get it well distributed.

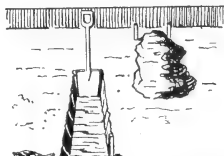
Hints on spading or plowing

Deep plowing or spading provides better drainage and aeration of the soil, encourages deep rooting of the crops.

Do not spade or plow when soil is wet—especially if the soil is heavy—or it will dry in hard clods that will be difficult to break up.

If you're going to tackle a sizable job of spading, it's good strategy to work at it only one hour a day for eight days. Then you'll be done before you realize it and won't find the work exhausting.

There's a trick to spading properly, but it's easy enough—like this—



First, dig a trench, as shown in sketch, piling at one end the soil removed.



Second, dig row by row and, as you progress along each row, turn the soil over into the trench made in digging the preceding row.

Third—when the last row is dug, carry the soil removed from the first row to fill in the last trench.

If the good soil is deep, spade to depth of 8 to 10 inches. If shallow, avoid digging up subsoil.

Pulverize the topsoil, breaking up clods with iron rake and removing stones or trash. Just be-

fore planting any area of the garden, work that part finely and smooth off with a rake before laying out the rows.

Fertilizing



Fertilizer must not come in contact with the seed or roots. Fertilizer may be applied along the rows in a band about 3 to 4 inches wide and about 2 inches from the line of seeds. Do this by scooping out a wide furrow about 2 inches deep with a good-sized common hoe and then distributing the fertilizer uniformly along the row.

Mix fertilizer thoroughly with top soil and cover about 2 inches deep. This is the most efficient way to use fertilizer.

How much fertilizer

Common mixtures of commercial fertilizer should be applied at the rate of $\frac{1}{2}$ pound per 30 feet of row if rows are 1 foot apart, or 1 pound per 30 feet if rows are 2 feet or more apart.

During dry spells, if additional plant food is needed, dissolve it in water before applying, to aid in getting it to the seed and roots.

How to Plant

Make parallel rows—for a neat garden that is easier to cultivate. Set stakes at either end of the row to be planted. Stretch a line of heavy cord or twine taut between the stakes and use this as a guide line for making the seed drill or furrow.

Depth of drill

Use a corner of your hoe to make a drill about $\frac{1}{2}$ inch deep for small seeds (onions, lettuce, etc.), 1 inch for medium size seeds, or a furrow 2 to 3 inches deep for large seeds (peas, beans, onion sets, etc.).

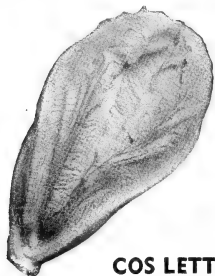
Planting in "hills"

Melons, cucumbers, squash, and sweet corn should be planted in "hills"—that is, a group of several seeds together, which may be thinned out later.

(Where there is heavy rainfall and poor drainage, the soil may be elevated slightly to form hills.)

Do not sow seeds too deep. In other words, don't bury them so they will rot before they have a chance to come up. (See chart on page 16 for guide in spacing rows, etc.)

(Continued on Page 13)



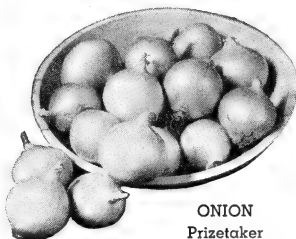
COS LETTUCE

White Paris or Trianon

For finest salad greens, try Cos Type Lettuce. Delicate flavor, sweet. Leaves are crisp, loose, and take salad dressing better than head lettuce. White Paris (or Trianon) is earliest, most popular variety of Cos Lettuce.

ONION, Prizetaker

Exceptionally large, beautiful American onion of the yellow-globe type. Grows to large size—up to 4 lbs.—but is mild in flavor, crisp and juicy. Flesh is pure white. Start early in hotbed.



**ONION
Prizetaker**

DILL

Long Island Mammoth—Used for flavoring. Flat seeds have strong, bitter flavor. Pkt. 10c.

EGGPLANT

Black Beauty—Large, egg-shaped, smooth, very dark purple fruits. Keep well. Plant bears 4 to 5 fruits. Early. 80 days. Pkt. 10c.

ENDIVE

Deep Heart Fringed—All-America Silver Medal, 1940. An entirely new type of endive. Leaf margins deeply cut and curled. Instead of lying flat on the ground, outer leaves turn upward, making this variety less susceptible to bottom rot than most others. Well-fitted hearts, closely packed with abundance of fine leaves, blanch to clear creamy yellow. Suitable for home and market garden. 70 days.

Large Green Curled (Pink Ribbed)—Outer leaves bright green, mid-ribs tinged with rose. Center blanches readily, making attractive salad. 95 days.

KALE

Dwarf Green Curled—Hardy, large and very attractive bright, deep green. 100 days.

KOHLRABI

White Vienna Early—8 to 10-in. leaves on slender stems. Bulbs 2 to 3-in., globular, light green. Crisp, tender, clear white flesh. 55 to 60 days. Pkt. 10c.

LEEK

Large American Flag—An early, popular variety, with thick, long white stems. Leaves large and drooping, medium green. 130 days. Pkt. 10c.

LETTUCE

Packet, 10c

Heading or Cabbage

Big Boston—Popular for cold frame forcing and outside culture. Medium, compact heads with creamy yellow

heart. Smooth, glossy leaves, edges wavy, and slightly tinged with reddish brown. 75 days.

Iceberg—Late, large variety. Compact heads, crumpled, crisp and sweet. Leaves light green, slightly brown on edges. 85 days.

Imperial No. 44—Well formed long leaves, medium large, hard heads. Resistant to tipburn.

New York No. 12—The standard crisp-head lettuce. Large globular shaped head, dark green with blanching, silvery white heart. Successfully grown outdoors spring, summer and fall. 85 days.

Loose Leaved Varieties

Grand Rapids—Erect, compact, plants. Light green, broad heavily fringed. For forcing or early planting outside. 43 days.

Prize Head—Early non-heading sort. Medium sized plants, crisp and tender. Color light brown on a medium green base. Leaves frilled at edges, and crumpled. 47 days.

Black Seeded Simpson—Light green, frilled and crumpled. 45 days.

Simpson's Early Curled—Also called Early Curled Silesia. Early hardy and dependable. Non-heading. Leaves large frilled, crumpled, light green; form a compact bunch at center. 45 days.

Chicken—Produces largest amount of leaves of any lettuce. Fast-growing. For poultry and rabbit feeding. 40 days.

Cos or Romaine

White Paris or Trianon—Medium large self-folding, dark green, loaf-shaped heads. Greenish-white, well blanched interior. 66 days.

MANGEL WURZEL

Mammoth Long Red—Very popular, 30 to 50 tons per acre. Roots grow half above the ground. Light red, flesh white with rose tinge. 110 days.

MELONS

Muskmelon and Cantaloupe

Bender's Surprise—Improved Surprise, similar to Tip Top. Coarse netted 7-lb., oblong fruit, distinctly ribbed, hard greenish-yellow skin. Flesh bright salmon. 95 days.

Hale's Best, No. 36—An improved strain. Early, uniform, oval, light ribbed, heavily netted. Thick, salmon flesh. Sweet, spicy. 80 days.

Hearts of Gold—Nearly round 2-lb. fruit, distinctly ribbed, deep green with fine grey netting. Thick, deep salmon flesh, tender, sweet. 94 days.

Honey Rock or Sugar Rock—Round, 4-lb. fruit. Grey-green skin, coarse, sparse netting. Orange-salmon, thick flesh, fine flavor. 85 days.

Pride of Wisconsin—Small seed cavity and thick, orange flesh, excellent flavor. Matures early. Large size. A new melon which is deservedly becoming a leader. 92 days.

Rocky Ford—Fruits small, rather large seed cavity. Nearly round, weigh 2½-lb. No ribs, heavily covered with hard grey netting. Flesh thick, green, with gold tinge at center. Juicy, spicy, good quality. 92 days.

Watermelon

Dixie Queen—Very prolific. Bright red, crisp, splendid quality fibreless flesh. Very few small, white seeds. 85 days.

Early Kansas—New variety, early. Large, oval, dark green with light green striping. Flesh solid deep red; texture fine; tender; delicious flavor. 80 days.

Kleckley's Sweet—Large, cylindrical, dark bluish-green, with thin, tender rind. Bright red, juicy, sweet flesh, creamy-white seeds with traces of brown. 85 days.

Stone Mountain—Also called Dixie Belle. High quality shipping variety. Fruits very large, oval-round, blunt ends. Dark green, tough rind. Flesh rich scarlet, fine grained, sweet. Seed white with black tips. 90 days.

Tom Watson—Outstanding red heart strain. Large fruit, uniform cylindrical, with tough, elastic rind, faintly veined. 90 days.

MUSTARD

Fordhook Fancy—Dark green, ostrich-plume-like leaves of mild flavor. Large bush-like plants, vigorous; heavy yield. 40 days.

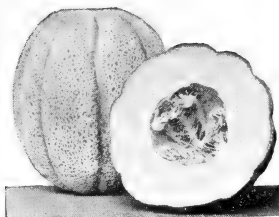
Mustard Spinach or Tendergreen—Wholesome, quick-growing green, combining mustard and spinach flavors. 28 days.

All Vegetable Seeds

**10c PER PACKET
UNLESS OTHERWISE NOTED**

In bulk quantities at money-saving prices. Special quotations to market gardeners. Prices subject to change without notice.

Garden Guideposts



MUSKMELON, Hearts of Gold



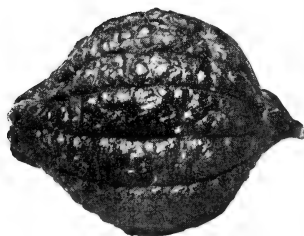
PUMPKIN,
Green Striped
Cushaw



SQUASH, Early White Bush



RADISH,
White Icicle



SQUASH, Hubbard

How to plant

(Continued from Page 11)

Don't sow seed too thickly. To do so wastes both seed and labor as the crowded seedlings must later be thinned by hand to allow space for proper development. Also, poor growth and poor quality vegetables result if seed is sown too thick and not properly thinned. (This is true whether planting in seed flat, hotheb or in open ground.)

Planting the seeds

Tear the corner from the packet. If seeds are very small, mix with three times their bulk of perfectly dry sand, then hold the packet over the row, tapping gently with your forefinger. This enables you to distribute the seed more evenly and avoid sowing too thickly.

Covering the seeds—After sowing, rake soil over seeds and tamp down lightly with hoe or foot to make sure soil is in close contact with seed, but do not pack.

In dry weather

CAUTION: The above directions apply to spring sowing, or where the soil is fairly moist. In hot, dry weather make deeper trenches and soak the ground thoroughly before sowing the seeds. Sow seed in bottom of trenches, but do not fill trench to top—just provide the correct amount of cover according to the size of seeds.

Transplanting

When plants are 2 inches high, thin them so as to allow enough space to make good stocky plants, or, if transplanting, place them 2 inches apart.

Tomato, eggplant, and pepper plants are tender and should not be set out before danger of frost is past. Cabbage, cauliflower, and kohlrabi are less tender but it is not safe to set them out much before the frost-proof date.

Plants started in coldframes can be hardened gradually by exposure to outdoor air, and can then be transplanted earlier than otherwise.

Where care is needed

Use care in transplanting or you will injure the tender, young plants.



Use a wide board when transplanting, to prevent packing soil around roots. (See sketch.)

When soil is sufficiently moist so a ball of soil can be retained around each individual root there is less chance of injury or of air pockets being left around roots. Use a trowel. (It is important that roots be kept in close contact with soil so they can get moisture.)



Right Wrong Wrong

When seedlings are to be transplanted without a ball of soil, long tap roots should be shortened, and the whole root system placed and "firmed in" so that it is well spread out, not bunched. Soil in which roots are placed must be finely pulverized.



When roots have been carefully placed in position, firm the soil around each plant enough to insure that roots are in contact with the soil, and that there are no air pockets.

Transplant in cool, cloudy weather or at evening or early morning.

Watering

Soak, don't sprinkle. Your garden needs water when the leaves look wilted in the sun and do not recover freshness over night.

Frequent sprinklings on the surface soil are not only of little value but may be harmful.

Don't wash away topsoil

The best way to do a thorough soaking job is to use a canvas hose that leaks all along its length, placed along a row at a time. Let the water run until the soil is saturated to a good depth. Then move hose to next row.



If you have only an ordinary hose (without holes), remove nozzle and place a small board under the end of the hose to distribute water gently. (See sketch.)

If an overhead sprinkler is used be sure it doesn't have too much force, or it will wash the soil away.

Water in the evening or early morning.

(Continued on Page 14)

Garden Guideposts

Cultivation

The main reasons for cultivating are four—all important:

1. To keep the surface of ground from caking or baking hard.
2. To conserve moisture in the subsoil.
3. To release food elements in the soil. (Air is necessary for this process, so soil must be loose to permit aeration.)
4. To destroy weeds.

Frequent, shallow cultivation or hoeing is best. It requires less effort and gives better results. Never let the weeds get a start. They rob the plants of food and moisture.

Cultivate after each rain or soaking, as soon as soil is dry enough, and as often between as necessary to keep weeds under control.

Avoid packing soil near seeds or plants by walking in center of spaces between rows.

Mulching

Mulching between rows with 2 or 3 inches of straw or strawy manure, dried lawn clippings, leaves, helps to conserve moisture and keep down weeds.

Mulches are especially valuable for the longer growing crops such as tomatoes, eggplants, peppers, cucumbers, and melons.

Apply mulch when plants are well established and after the rows have been weeded.

Harvesting

The secret of fine flavor in vegetables is harvesting each variety when its texture and flavor are best. No vegetable should be allowed to become tough, coarse, overgrown, and unpalatable before being harvested. Use as soon after harvesting as possible.

Remember, large size is not evidence of quality. Some vegetables should be picked or pulled when young for cooking or canning.

Never pick string beans while dew is on them or you may spread plant diseases.

NOTE ON COOKING: Do not overcook vegetables as this destroys much of the vitamin content. Do not use too much water as this wastes part of the valuable minerals. Never, never add soda to green vegetables to set the color as it destroys vitamin C.

Storing Vegetables

It is often cheaper and easier to store than to can vegetables—particularly when canning supplies and time are limited.

Success in storing vegetables depends on—

(a) proper selection—only good, sound, dry vegetables should be stored;

(b) proper stage of maturity—this varies with different vegetables (cabbage, onions, squash, pumpkins should be fully matured; but beets, carrots, parsnips, turnips and salsify may become woody if allowed to fully mature);

(c) proper temperature and humidity in the storeroom. Root crops require cool, moist air; cabbage and potatoes, cool and moderately moist; onions and dry beans, cool and dry; squash, pumpkins, sweet potatoes, warm and dry.)

Temperature should be 34° to 38°. (Squash, pumpkins, and sweet potatoes should first be "cured" for 3 weeks at 70°.)

Methods of storage

A vegetable storage room in your basement is ideal, for it is convenient and it also provides a suitable place for canned supplies.

This room should be partitioned off from the rest of the house or cellar, well removed from the furnace and preferably on the cold side of the house, with an outside window for proper ventilation. It should be well insulated.

An earthen floor helps provide necessary humidity; a concrete floor can be sprinkled every few days or covered with a layer of earth or sawdust, which should be dampened occasionally.

Keep the room dark. Screen all openings to keep rats and mice out. Keep onions, cabbage on slatted racks; potatoes in bins; root crops in moist sand.

Remove all decayed plant material, and keep room clean and sanitary.

Outdoor storage



Sink a barrel half way into the ground, fill with selected vegetables, cover with burlap bags stuffed with straw, then cover with 6 inches of clean straw or leaves and a layer of dirt on top



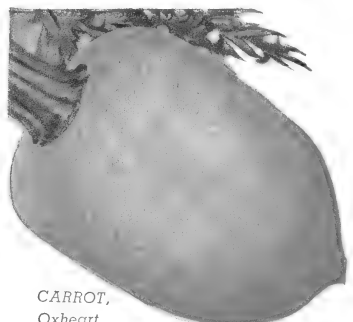
to hold it in place. Or turn the barrel on its side, sink half way into earth, fill, cover, etc., as described above. (See sketches.)



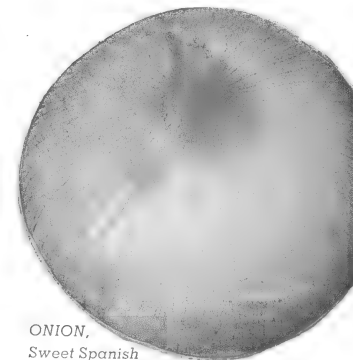
RADISH, French Breakfast



TURNIP,
Amber Globe



CARROT,
Oxheart



ONION,
Sweet Spanish

OKRA or GUMBO

Dwarf Green—Early, prolific dwarf-growing sort. Dark green fluted, 5 to 7-in. pointed pods. 50 days.

White Velvet—Early and prolific. Pods pale greenish-white, 6 to 7-in. long. Meaty, tender. 62 days.

ONIONS

Packet, 10c

Yellow Varieties

Ebenezer—Large, somewhat flattened. Leading variety for onion sets.

Prizetaker—Large, globe shaped, with glossy, thin straw-colored skin. Coarse, mild flesh. 102 to 104 days.

Southport Yellow Globe—Globe shaped, medium to large bulbs. Solid yellow, tough clinging skins. Creamy white flesh. 114 days.

Sweet Spanish—Large, globe-shaped, exceptionally mild and sweet—excellent for eating raw or boiled. Light yellow skin and pure white, firm, crisp, and tasty flesh. 112 days.

Yellow Globe Danvers—Medium late, hardy. Good cropper, fine for storage. Medium large, firm, solid, round bulbs. White, slightly yellow toned flesh. 112-114 days.

Red Varieties

Red Wethersfield—Popular, good keeper, used extensively for sets. Medium large, flat bottomed bulbs with sloping top. Purplish-red. Fine grained flesh, firm, slightly flushed with pink. 100 to 102 days.

Southport Red Globe—Finest of all red onions. Perfectly round, good sized bulbs with thick, small necks. Skin is deep purplish-red. Strong flavored flesh, white tinged with pink. Good keeper, productive. 112-114 days.

White Varieties

Southport White Globe—Best of the whites. Medium-sized, round, solid white bulbs, fine thin skin. Waxy white flesh, mild and fine grained. Keeps well in fall. 110 to 112 days.

White Portugal or Silverskin—Excellent flat variety. Dependable cropper, excellent for sets, for green bunching, or as a pickler. 100 to 102 days.

ONION PLANTS

Sturdy, hardy plants that come to you all ready to set out. Ask for latest prices.

ONION SETS

The quickest way to get onions early. We offer choice, select, dry sets, of the highest quality. (Prices on application.)

WHITE GLOBE.

RED.

YELLOW.

PARSLEY

Hamburg Rooted—Pencil cut, plain leaves. Edible roots, thick and fleshy, 10 to 12-in. long. Used for flavoring. 90 days.

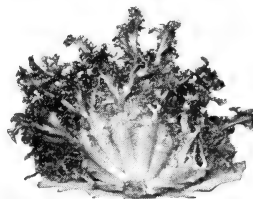
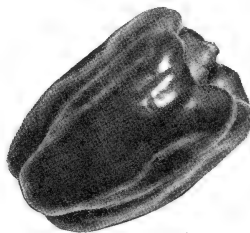
Moss Curled or Triple Curled—Compact, dark green leaves, curled and fine-cut. 70 days.

Plain or Single—Leaves dark green, flat, deeply cut, but not curled. 60 days.

Especially RECOMMENDED

PEPPER, World Beater

A large, handsome pepper that grows to 5 in. long, 3½ in. diameter. Three- or four-lobed, with very thick, mild and sweet flesh. Fruit is glossy green changing to dull red when ripe. Plants are vigorous and productive.



ENDIVE, Deep Heart Fringed

Favorite of French chefs for green salads. This improved strain has full, deep, compact heart and thick, green leaves curled at the edges, blanched at the center. Can be sown early, as soon as ground can be worked, or later for main crop.

PARSNIP

Hollow Crown—The most generally grown kind. Roots 2½ to 3-in. thick at shoulder. 12 to 14-in. long, uniformly tapered, hollow crowned. 95 days. Pkt. 10c.

PEAS

Large Packet 10c

Early and Second Variety

Alaska—Wilt resistant. Used for canning and early home garden. Blunt, straight, light-green, 3-in. pods with 6 to 8 good quality small peas. Plant 32-in. 60 days.

American Wonder or Nott's Excelsior—The old favorite. Dark green, fairly coarse vine. Single and double pods, light-green, 12 to 14-in. vines, 2½-in. pods. 61 days.

Laxton's Progress—Medium dark green vine, 16 to 18-in. Single pods almost an inch wide and 4½ to 5-in. long, with 7 to 9 large peas. 62 days.

Laxtonian—Exceptionally choice and prolific. Dark green, rather coarse vines, producing straight pointed, well-filled 2½-in. pods. 62 days.

Little Marvel—Outstanding dwarf. Fine quality, large yield. Single and double, dark green, 3-in. pods—blunt, plump, well filled with 7 to 8 medium sized, light green tender peas. 62 days.

Thomas Laxton—Medium height. Strong vine bears numerous dark green, blunt ended pods, 4 to 4½-in. Retains flavor and sweetness. One of earliest. 57 days.

Later Varieties

Alderman—Large podded variety of the Telephone family. Excellent for home garden, truckers, shipping to distant markets and for freezing; resistant to Fusarium wilt. Vine dark green, coarse. Pods single, very broad, plump, straight, dark green, pointed; contains 8 to 10 peas of highest quality. Seed large, wrinkled, light green. 74 days.

Dwarf Telephone or Daisy—Large pods, 4½-in. long, broad, straight and pointed, containing 7 to 9 large round peas. Vines about 24-in. tall. A popular main-crop pea. 79 days.

Improved Telephone—Dark podded, most popular late variety. Pods 4½ to 5½-in. long, very large; vine about 40-in. tall. 75 days.

Edible Podded or Sugar

Mammoth Melting Sugar—Wilt resistant. Coarse light-green vine, 54-in. Single 4½-in. pods, broad, indented, light, blunt, stringless, without fiber, fleshy. Contain 7 peas. Seed large, round, creamy-white. 74 days.

For increased yield, inoculate! Garden peas, like all legume crops, will almost always benefit by inoculation. Both quantity and quality of the crop are increased when the beneficial nitrogen-fixing bacteria are present in sufficient numbers.

PEPPERS

Packet 10c

Bull Nose or Large Bell—Early favorite. Small, productive plant. Blunt fruit 3 by 2½-in. Deep green to scarlet red. Ribbs pungent, flesh mild. 64 days.

California Wonder Improved—Number one quality peppers, about 4-in. long and 3½-in. diameter, very smooth, 3 and 4 lobed, glossy green, turning bright crimson when ripe. Remarkably thick walls, tender, sweet. 75 days.

Hungarian Wax—Slender, waxy yellow fruit about 6-in. long, turns red when ripe. Very hot. 65 days.

Long Red Cayenne—The hot favorite. For canning, pickling, drying. Pungent flavored fruit, tapering and twisted. 70 days.

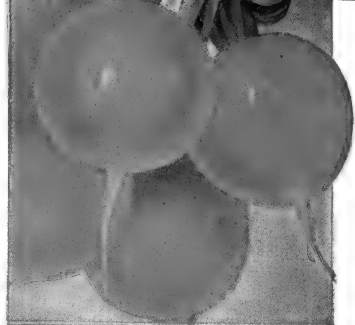
All Vegetable Seeds
10c PER PACKET
UNLESS OTHERWISE NOTED

In bulk quantities at money-saving prices. Special quotations to market gardeners. Prices subject to change without notice.

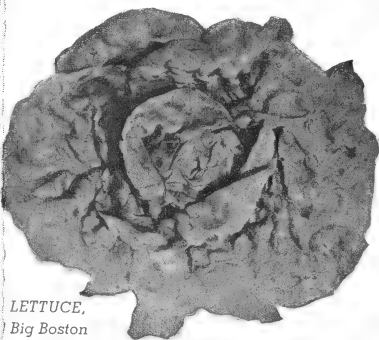
Planting Guide

FOR VEGETABLE GARDENS

	Seed Required for 50 Ft. of Row	Distance Between Rows (Inches)	Distance Apart in Row (Inches)	Depth of Planting (Inches)	Approximate Yield per 50 Ft. of Row	Seed Required Family of 5
Artichoke	$\frac{1}{8}$ oz.	36 to 48	18 to 24	$\frac{1}{4}$		
Asparagus	$\frac{1}{2}$ oz.	14 to 24	3 to 6	1	25 lbs.	$\frac{1}{2}$ oz.
Beans, Bush	$\frac{1}{2}$ lb.	24 to 30	2 to 3	$1\frac{1}{2}$ to 2	20 qts.	2 lbs.
Beans, Bush Lima	$\frac{1}{2}$ lb.	18 to 24	2 to 3	1	32 qts.	1 lb.
Beans, Pole	$\frac{1}{2}$ lb.	36 to 48	6 to 8	$1\frac{1}{2}$ to 2	30 qts.	1 lb.
Beans, Pole Lima	$\frac{1}{4}$ lb.	36 to 48	6 to 8	$1\frac{1}{2}$ to 2	$1\frac{1}{4}$ bu.	1 lb.
Beets, Table	$\frac{1}{2}$ oz.	14 to 24	3 to 4	$\frac{1}{2}$ to 1	$1\frac{1}{4}$ bu.	2 oz.
Beets, Mangel	$\frac{1}{2}$ oz.	20 to 28	3 to 4	1		
Broccoli, Heading	$\frac{1}{8}$ oz.	24 to 30	24	$\frac{1}{2}$	50 head	1 pkt.
Brussels Sprouts	$\frac{1}{8}$ oz.	24 to 30	12 to 18	$\frac{1}{2}$	15 qts.	1 pkt.
Cabbage	$\frac{1}{4}$ oz.	18 to 36	14 to 24	$\frac{1}{2}$	35 to 50 head	$\frac{1}{4}$ oz.
Chinese Cabbage	$\frac{1}{2}$ oz.	18 to 24	12 to 15	$\frac{1}{2}$	40 to 50 head	1 pkt.
Carrots	$\frac{1}{4}$ oz.	16 to 24	1 to 3	$\frac{1}{2}$	24 qts.	$\frac{1}{2}$ oz.
Cauliflower	$\frac{1}{4}$ oz.	24 to 30	20 to 24	$\frac{1}{2}$	25 to 30 head	1 pkt.
Celery	$\frac{1}{8}$ oz.	24 to 40	4 to 6	$\frac{1}{4}$	75 to 100 stalks	1 pkt.
Collards	$\frac{1}{4}$ oz.	24 to 30	14 to 18	$\frac{1}{2}$	3 bu.	1 pkt.
Corn, Sweet	4 oz.	30 to 42	9 to 12	1	100 ears	1 lb.
Corn, Pop	3 oz.	34 to 40	6 to 8	1		
Cucumber	$\frac{1}{2}$ oz.	48 to 60	12 to 36	$\frac{1}{2}$ to $\frac{3}{4}$	75 to 100 fruit	$\frac{1}{2}$ oz.
Dill	$\frac{1}{4}$ oz.	18 to 36	4 to 8			
Egg Plant	$\frac{1}{8}$ oz.	24 to 36	18 to 24	$\frac{1}{2}$	70 to 80 fruit	1 pkt.
Endive	$\frac{1}{2}$ oz.	18 to 24	8 to 12	$\frac{1}{2}$	50 to 60 plants	1 pkt.
Kale	$\frac{1}{2}$ oz.	24 to 32	14 to 22	$\frac{1}{2}$	50 plants	1 pkt.
Kohlrabi	$\frac{1}{4}$ oz.	14 to 24	4 to 6	$\frac{1}{2}$	1 bu.	1 pkt.
Leek	$\frac{1}{4}$ oz.	12 to 42	2 to 4	$\frac{3}{4}$		1 pkt.
Lettuce	$\frac{1}{4}$ oz.	12 to 18	4 to 12	$\frac{1}{4}$	25 lbs.	2 oz.
Muskmelon	$\frac{1}{2}$ oz.	70 to 80	36 to 60	$\frac{3}{4}$	50 to 60 fruit	1 pkt.
Mustard	$\frac{1}{4}$ oz.	14 to 24	6 to 9	$\frac{1}{2}$	1 to $1\frac{1}{2}$ bu.	$\frac{1}{2}$ oz.
Okra	1 oz.	36 to 48	24	1	450 pods	1 pkt.
Onion	$\frac{1}{4}$ oz.	18 to 24	3 to 4	$\frac{3}{4}$	1 bu.	$\frac{1}{2}$ oz.
Onion (for sets)		12 to 14	not thinned	$\frac{3}{4}$	300 scallions	
Onion sets	1 pt.	12 to 18	2	1	60 bunches	1 qt.
Parsley	$\frac{1}{4}$ oz.	12 to 20	6 to 8	$\frac{1}{2}$	45 bunches	1 pkt.
Parsnips	$\frac{1}{2}$ oz.	18 to 24	3 to 4	$\frac{1}{2}$	1 bu.	$\frac{1}{2}$ oz.
Peas	$\frac{3}{4}$ lb.	24 to 36	1 to 2	1 to 2	30-50 qts. pods	3 lbs.
Peppers	$\frac{1}{8}$ oz.	20 to 30	18 to 20	$\frac{1}{2}$	25 doz. peppers	1 pkt.
Pumpkin	2 oz.	96 to 108	60 to 84	$\frac{3}{4}$	25 to 35 fruit	1 pkt.
Radish	$\frac{1}{2}$ oz.	12 to 18	1 to 2	$\frac{1}{2}$	50 bunches	3 oz.
Rhubarb	$\frac{1}{2}$ oz.	24 to 48	18 to 24			
Rutabaga	$\frac{1}{8}$ oz.	18 to 24	6	$\frac{1}{2}$ to 1		1 pkt.
Salzify	$\frac{1}{2}$ oz.	18 to 24	2 to 4	$\frac{1}{2}$		1 pkt.
Spinach	$\frac{3}{4}$ oz.	14 to 18	3 to 5	$\frac{3}{4}$	$1\frac{1}{2}$ bu.	1 oz.
Spinach, N.Z.	$\frac{1}{2}$ oz.	30 to 36	12 to 18	1	35 to 50 lbs.	1 oz.
Squash, Summer	$\frac{1}{4}$ oz.	36 to 48	48 (4 seeds)	1	60 to 70 squash	1 pkt.
Squash, Winter	$\frac{1}{4}$ oz.	72 to 90	72 (4 seeds)	1	35 to 40 squash	1 pkt.
Swiss Chard	$\frac{1}{2}$ oz.	12 to 18	4 to 6	1	25 lbs.	1 oz.
Tomato	$\frac{1}{16}$ oz.	40 to 60	36 to 40	$\frac{1}{2}$	2 bu.	1 pkt.
Turnip (roots)	$\frac{1}{4}$ oz.	18 to 24	2 to 4	$\frac{1}{4}$	1 bu.	$\frac{1}{2}$ oz.
Turnip (greens)	$\frac{1}{2}$ oz.	12 to 18	2 to 4	$\frac{1}{4}$	$1\frac{1}{2}$ bu.	1 oz.
Watermelon	$\frac{1}{2}$ oz.	72 to 96	72 to 96	$\frac{3}{4}$	20 fruit	1 pkt.



RADISH, Early Scarlet Globe



LETTUCE,
Big Boston



BRUSSELS
SPROUTS,
Dwarf
Improved



TOMATO,
Improved Stone

All Vegetable Seeds

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PEPPERS (Continued)

Pimento—Excellent for canning or stuffing. Smooth, heart-shaped, very thick flesh. 73 days.

Red Chili—Low, spreading, 18-in. plant. Extremely pungent fruit. Erect, conical. 82 days.

Ruby King—Abundant, tapering fruit, dark-green changing to ruby-red. 69 days.

World Beater—One of the best large peppers. Glossy-green, changes to bright red. Mild, very sweet, thick flesh. 75 days.

PUMPKIN

Connecticut Field—Large fruit with flat ends, 15 to 25-lb. and up to 15-in. Surface, slightly ribbed, deep orange. Thick flesh, orange-yellow, sweet and coarse. 118 days.

Green Striped Cushaw—Medium size, smooth, crookneck shaped, white with green mottling and stripes. Thick yellow flesh. 115 days.

Kentucky Field or Large Cheese—Dull orange, large ribbed fruit. Coarse, deep yellow flesh, good flavor. 120 days.

Small Sugar or New England Pie—Desirable for pie or general use. Round, flat end fruit, deep orange. Thick, yellow-orange flesh. 118 days.

Winter Luxury or Pie—Early, resembling Small Sugar but larger. Flat ended, 9 to 10-in. 7 to 8-lb. Thin, netted, orange-yellow skin. 100 days.

RADISH

Crimson Giant—Large round, 1 to 1½-in. Deep crimson roots. Very crisp and tender for its size. 28 days.

Early Scarlet Globe—Globular, slightly elongated, bright scarlet. 24 days.

Early Scarlet Turnip, White Tipped—Carmine red with white tip. Flesh white, crisp and mild. 26 days.

French Breakfast—Roots thicker toward bottom. 1½-in. long by ½ to ¾-in. Dull scarlet, white tipped. 25 days.

White Icicle—Tapering roots 5 to 5½-in., very white with pure white, mild flesh. 27 days.

Fall and Winter Varieties

Rose China Winter—Popular, very distinct winter sort. Good for late salads. Cylindrical blunt, smooth, bright rose-red. Flesh white, very firm and pungent. 52 days.

Round Black Spanish—Black-skinned, with pure white flesh, crisp, solid and pungent, 7 to 10-in. long and 2 to 3-in. thick. 60 days.

SPINACH

Packet 10c

Bloomsdale Savoy, Long Standing—A few days later than regular Bloomsdale Savoy. Holds from 12 to 14 days longer. 42 days.

Improved or Giant Nobel—Large, vigorous, spreading plant, slow to form seed stalks. Extremely heavy yielder. Very large, thick, smooth, deep green leaves. 45 days.

King of Denmark—Exceptionally long standing, large plants. Broad, dark-green leaves, somewhat crumpled. Excellent for spring planting. 46 days.

New Zealand—Thrives in dry, hot weather. Can be picked repeatedly all season. Not a true spinach, but similar when cooked. 70 days.

Spinach seed is scarce this year.

SQUASH

Summer Varieties

Early Prolific Straightneck—Earlier, smaller, and more productive than Giant Summer Straightneck and more uniform. Brilliant yellow. Fine for home or market. Pkt. 10c.

Early White Bush Scallop—Fruits greenish when young, become white at maturity. 3-in. long, 7½ to 8½-in. wide. 53 days.

Giant Summer Crookneck—Prolific, bush type plant, curved neck fruits around 4 to 5-lb., 20 to 24-in. long. 4 to 5-in. diameter. 56 days.

Giant Summer Straightneck—Yellow fruit much larger than the old "Crookneck." Finest quality. 58 days.

Zucchini—Straight, cylindrical fruits, 3 to 4-lb., 4 to 5-in. through, 10 to 14-in. long. Mottled and striped green-cream-gray. Very firm, delicate flavored flesh. Bush type, 60 days.

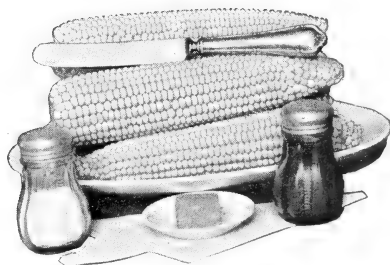
Fall and Winter Varieties

Golden Table Queen—All-America medal 1939. Skin is deep golden, flesh orange, dry, fine flavor and texture.

Especially RECOMMENDED

CORN, Stowell's Evergreen

Standard for your main sweet corn crop. Produces ears 7½ to 8 in. long, with 16 to 20 rows of fine, sugary white kernels that are sweet, tender, meaty and hold their sweetness.



Stowell's Evergreen is excellent for canning. It will be hard to resist eating it all on the cob, but better plan to have a surplus to can for next winter.

Table Queen or Des Moines—Acorn-shaped, green, deeply furrowed; flesh rich yellow, dry, mealy, delicious. Convenient size for baking and serving in halves. 100 days.

Wanted Hubbard—Large, very dark green shell and heavily warted. Flesh deep orange and of excellent quality. 120 days.

SWISS CHARD

Lucullus—Most popular Chard. Upright in growth, with yellowish-green curled, crumpled leaves. Thick, broad and light green stems. 50 to 60 days. Pkt. 10c.

TOMATOES

Packet 10c

Beefsteak—Rich scarlet-red, extra large fruits, more or less ribbed. Juicy, solid, with rich sub-acid flavor. One of the best for home use. 90 days.

Bonny Best—Second early variety, valuable for canners. Medium vine, not very hardy. Medium-sized, apple-shaped, solid fruits, bright scarlet. Start indoors and set out after all danger of frost is past. 73 days.

Earliana—Open, spreading, medium small vines. The bright red fruits run to medium size. This seed is selected for thick, smooth fruit. 66 days.

Golden Queen—The leading, main-crop large yellow variety. Good for juice and for home gardens. The fruit is a deep golden yellow color, and vines medium large. Very mild flavor, smooth and solid. 84 days.

Improved Stone—Medium late. Deservingly popular with canners and market gardeners. Ripens evenly and is uniform. Vines large, dense, very productive. Fruits large, flattened, but deep. Smooth attractive scarlet-red, of fine flavor. 86 days.

John Baer—Thick, scarlet (similar to Bonny Best). Smooth, firm, medium large fruit. 70 days.

Marglobe—Moderately productive, with heavy foliage. Vigorous and resistant to wilt and rust. Fruits medium large, nearly round, smooth, and solid. Deep red. 77 days.

VEGETABLE GROWING CHART

ASPARAGUS. Seed should be soaked 24 hours before planting—and covered 2" deep in the garden. Thin young plants to 1" apart. Cultivate often. Set in permanent beds in spring.

BUSH BEANS. Do not plant until danger of frost is past. Press soil firmly around seeds. Thin young plants to about 6" apart. Cultivate only before blooming and never when wet. Pick frequently. Make plantings every two weeks for supplies throughout the season.

POLE BEANS—Plant about same time as Bush Beans. Poles 5' to 8' long should be driven into ground in rows about 4' apart with spacing of 3' in row. Run rows north and south. Plant 5 to 8 beans around each pole, thinning to 4 plants later. Hoe frequently.

Caution: To avoid spreading plant diseases, do not cultivate or pick when plants are wet.

BEETS. Plant about same time as radishes in deep, sandy loam. Have soil fine and loose and press down firmly around seed. When tops are 3" to 6" tall pull them and use for cooked greens. Continue this until roots stand 6" apart. Plant every 10 days or so.

BRUSSELS SPROUTS. Easy to grow wherever conditions are favorable for late cabbage, and requires same culture.

CABBAGE. Set out as soon as frost danger is past. Use plenty of good commercial fertilizer. Cultivate frequently, every 5 or 6 days until cabbages are large. For winter storage, stand plants upright in cold cellar, with roots in sand. Slight freezing will not harm cabbage.

CARROTS. Sow early and thinly—in light deep soil, preferably fertilized the previous season. Thin plants when about 2" tall. Keep on cultivating frequently throughout season.

CAULIFLOWER. Follow same methods as for cabbage except that heads must be protected from sunlight to assure the desirable white curd. Gather and tie the tops of leaves together loosely to shut off light. Do not cramp the heads.

CHINESE CABBAGE. An easily raised succession crop. Set out in rows which have been occupied by earlier vegetables.

COLLARDS. Sow seed thickly in rich ground and transplant when about 4" high—or if plants are to remain where sown, spread the seed more thinly, and when young plants are well started, space them out to 2' or 3' apart in the row.

CORN. Do not plant until all danger of frost is past. Be sure soil is

well worked and dry—then drop 6 kernels of corn in a shallow hole made with the corner of the hoe. Cover each "hill" with about 1" of fine soil pressed down firmly. When 6" high, thin to three or four plants in each hill. Hoe often, but not deeply.

CUCUMBER. The best soil is warm, sandy loam—preferably on a slight southward slope. Be sure all danger of frost is past, and that soil is fairly moist and loose. Plant 8 or 10 seeds to the hill. When 6" tall, thin to 3 in a hill. Take fruit as soon as it reaches picking stage.

EGG PLANT. Requires continuous warm weather for best results. Seed should be started in a hotbed, as it is slow to germinate. Set plants in open ground when 2" tall and protect from hot sun when young. Be sure to keep young plants developing rapidly. Cultivate freely. To produce large fruits, remove lateral branches so as to reduce number of fruits per plant. Spray to protect from potato bugs.

ENDIVE. Sow at intervals for continuous supply. When well started, transplant or thin to 1" apart. To blanch, tie outer leaves together over the center when plant is nearly grown. Just before killing frosts in fall, dig the plants, taking plenty of soil with roots—pack closely together and store in dark cellar for winter use.

KALE or BORECOLE. Requires moist, well enriched soil. Pick leaves as wanted, or pull whole plant. Leaves are best after a frost.

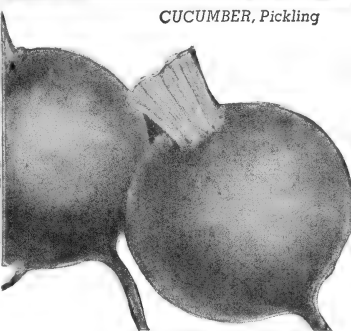
KOHLRABI. Sow early as possible in light, rich soil. When plants are in the third leaf, thin to 6" apart. Plant at intervals of 10 days for succession of bulbs until hot weather—after which they do not grow. Use while still young and tender, before skin hardens.

LETTUCE. Sow as soon as ground can be worked—or for extra early crops start indoors and transplant when danger of heavy frost is over. Repeat sowing every 2 weeks to insure continuous supply. For leaf lettuce, thin plants to 6" apart. For head lettuce, thin to 8" spacing, in rows 18" apart. Lettuce grows best and heads best in cool, moist weather.

MUSKMELON. Requires long season to develop and is easily injured by frost, or even by cool weather. Before planting, spade in liberal forkful of well rotted manure in each hill. Thin plants to 4 per hill after third leaf develops, and train vines in different directions. Cultivate as long as possible. On moist ground use shingles to hold melons off ground to prevent rotting.



CUCUMBER, Pickling



BEET, Detroit Dark Red



BEANS, Golden Wax



TOMATO,
Bonny Best

TOMATOES (Continued)

Ponderosa—One of the largest varieties. Spreading large vines. Solid, fine flavored, pink, with small seed cells. Somewhat rough and flat. Have a tendency to crack. 88 days.

Pritchard—A cross between Marglobe and Cooper's Special, developed by U. S. Department of Agriculture. Large, solid, smooth, round fruit with thick walls. Rather light scarlet. 73 days.

Rutgers—Second early variety. Large thick stems, vigorous foliage. Fruits similar to Marglobe but flatter at stem end. Bright red, with thick walls. Red, firm flesh, low acidity. 72 days.

Stokesdale—An extremely important new development. Smooth, 7-oz. fruit, brilliant color, exceedingly solid flesh and small seed cavities. Matures in the second-early group, a full week earlier than the Marglobe group. Usually ahead of Bonny Best, too—and 2 ounces heavier.

Small Fruited

Red and yellow varieties, shaped like miniature pears, plums, and cherries; very attractive in appearance and popular for preserves.

TURNIPS White Fleshed

Purple Top White Globe—All purpose variety. Large, sweet tops. Smooth, globe-shaped roots, purple-red above, white below. Sweet, tender, crisp white flesh. 50 to 60 days.

Amber Globe—Chiefly grown for stock, but used for table when young. Tops large, cut leaved. Roots round, large, smooth, globe-shaped, light yellow with green top. Fresh yellowish white, of good quality. 76 days.

Foliage Turnip

Shogoin or Japanese Foliage—Recently introduced and rapidly gaining popularity. 18 to 20-in. bright green tops, strap leaved. Roots are semi-round, and white. Very mild and tender. 70 days.

Rutabaga or Swede Turnip

American Purpletop—Hardy and productive. Tender, firm, light yellow, sweet flesh. 88 days.

VEGETABLE GROWING CHART

OKRA or GUMBO. Do not plant until ground is warm, as this is a tender, hot weather plant. Pick pods before they develop woody fibres.

ONION SETS. Onion sets used instead of seeds will produce earlier crops of green onions or large bulbs. Plant sets right side up and cover with garden rake; then firm the soil well over the sets.

ONION. Plant as soon as soil can be prepared. For best yield, plant on very fertile land—fall plowed, and thoroughly fertilized. When plants are a few inches tall, thin to prevent crowding—using the plants removed as green onions. Those left to become full ripe can be stored for winter. Cultivate and hand weed crop every 2 weeks during summer.

PARSLEY. Does best in rich, mellow loam. Seed is slow to germinate, and is helped by soaking in warm water over night before planting. Sow early and not too deeply. When curled varieties are about 3" tall, cut off all leaves. The new growth will be brighter and better curled.

PARSNIP. Plant in rich, sandy loam, thoroughly pulverized. Seed requires plenty of moisture for germination and should be sown early. Dig after a killing frost. Freezing improves parsnips, so some can be left in the ground all winter and used in spring. For storage, bury in dry sand.

PEAS. For early crop, plant in light, rich soil. For general crop, a rich loam or clay soil is best. Plant at 2-week intervals for continuous supply. Soak seeds in water the night before planting. Peas need moderate temperature, plenty of moisture. Light frosts do not injure them so they may be planted early in spring. Varieties more than 1½" tall should be staked when 4" to 6" tall.

For increased yield, **INOCULATE!** Garden peas, like all legume crops, almost always benefit by inoculation. Quantity and quality of the crop are increased when the beneficial nitrogen-fixing bacteria are present in sufficient numbers.

PEPPERS. Warm, mellow soil in sheltered location is best. Start under glass. Cultivate regularly, drawing soil up around stems. When plants are 7" to 8" tall, hoe in light dressing of commercial fertilizer. Do not plant hot peppers near sweet; they are apt to cross.

PUMPKIN. Cultivate practically the same as melons or cucumbers.

RADISH. Soil should be light, quick and rich to ensure rapid growth. Slow growth makes the flavor too

strong. Sow as early as ground can be worked, as Radishes are very hardy. Make successive sowings up to hot weather. When in the third leaf, thin to give roots plenty of room. Pull promptly when mature. The secret of crisp, delicious radishes is quick growth, prompt picking.

RHUBARB. Sow in cold frame in spring and transplant into rows as soon as plants are large enough. In fall or the following spring transplant to permanent location in rows 3' to 5' apart each way. Stalks should not be taken for use the first year.

SPINACH. Plant very early in spring—or start seed in fall (giving it protection by 3" of straw over the winter) and enjoy an early spring crop. Cut all spinach before hot weather as it doesn't do well in extreme heat. Sow again in August or September for fall crop. Spinach should be gathered before the flower spike appears.

SQUASH. Plant about same time as corn—and in hills. Does best in rich, sandy loam, and is helped by fertilizing the hills. When in the third leaf, thin to 4 plants per hill. Cover every fourth joint with earth to encourage extra root formation. Bush varieties may be planted in hills 3' to 4' apart.

SWISS CHARD. Requires about same treatment as beets. Cultivate frequently. Leaves may be gathered during summer and fall. New ones will grow quickly.

TOMATOES. Do best in sandy, well pulverized loam. Sow seed in hotbed or indoors. When plants are about 2" high, set out, 3" apart, in boxes or pots—later transplant into the garden. Or keep in flats until all danger of frost is past, and then set plants out directly into the garden. Water around the roots of the plants when setting them out, if ground is dry. Cultivate frequently until plants shade the ground. Remove all but the two or three strongest branches. Study methods of staking and training vines and adopt the one best suited to your situation.

TURNIPS. For summer greens or roots, sow as early as radishes and lettuce. Thin out when plants are 1" high. Sow again in summer for fall and winter use. Turnips do best when most of their growth is made in autumn or early spring. Should be grown rapidly for best flavor and texture.

WATERMELON. Requires about same culture as muskmelon, except the vines need more room. Fertilize each hill liberally and cultivate thoroughly.

All Vegetable Seeds

**10c PER PACKET
UNLESS OTHERWISE NOTED**

In bulk quantities at money-saving prices.
Special quotations to market gardeners.
Prices subject to change without notice.

Grow Your Own Vitamins!

This nation has the finest food supply in the world. Yet nutrition experts have proved that most of us are poorly nourished. As we all know now, even our "three good squares a day" often do not give us certain minerals and vitamins that we need . . . now more than ever.

These necessary elements may be bought at the drug store. But they can also be home grown, at far less cost! Garden fresh vegetables can provide nearly all of them, in ample quantity. Here, in a few words, is complete data on the health miracle your garden can perform:

VITAMINS

VITAMIN A—Promotes growth, appetite, digestion, resistance to infection. Necessary for proper formation of teeth.

Lack of it can cause nerve degeneration, night blindness, diarrhea, sterility.

VITAMIN B₁ (Thiamine Hydrochloride)—

Promotes appetite, digestion, growth. Essential for proper nerve function and for reproduction and lactation. **Lack of it** can cause impaired growth of breast-fed babies, loss of weight and vigor, sub-normal temperature, sterility.

VITAMIN B₂ (Riboflavin, G)—**Promotes** growth. Prevents lesions of the lips, cracks at the angles of the mouth and other facial lesions. Prevents certain abnormal changes in the eyes which result in failing vision.

NICOTINIC ACID (Nicotinamide)—**Effective** against the deficiency disease, pellagra, in which the digestive and nervous systems are affected.

VITAMIN C (Ascorbic Acid)—**Protects** body from scurvy. Required for normal tooth and bone formation and maintenance, and for proper healing of wounds. **Lack of it** may cause loss of weight, fatigue, loss of appetite, slow complexion, tooth decay, pyorrhea, certain gum conditions, and hemorrhage.

SOURCES

Excellent vegetable sources—carrots, collards, escarole, green lettuce, green peas, spinach, turnip greens.

Good vegetable sources—green beans, green cabbage, chard, yellow corn, kale, green peppers, pumpkin, squash, tomato.

Other sources—Fish liver oils, liver, eggs, milk, butter, apricots, yellow peaches, oranges and bananas.

Excellent vegetable sources—Ripe beans, ripe peas.

Good vegetable sources—asparagus, beans, cabbage, carrots, cauliflower, celery, collard, lettuce, onions, parsnip, potato, spinach, tomato, turnips, turnip greens, watercress.

Other sources—Yeast, whole grains (germ and outer layers of seeds), pork, liver, organs and muscles of many animals, nuts, eggs, milk.

Excellent vegetable sources—beet greens, kale, potato, spinach, turnip greens, watercress, lima beans, peas.

Good vegetable sources—beets, cabbage, carrots, cowpeas, soybeans, lettuce, onions, tomato, turnips.

Other sources—Liver concentrates, yeast, milk, liver, wheat germ, eggs, cheese, and many meats.

Sources—Yeast, liver, wheat germ, milk, certain fish, organs and muscles of many animals, and several leafy green vegetables.

Excellent vegetable sources—cabbage, tomato, celery, onions, green peas, green peppers, rhubarb, turnips.

Good vegetable sources—beets, cabbage cooked, carrots, cauliflower, collard, cucumber, endive, lettuce, peas cooked, potato, pumpkin, spinach cooked, string beans, sweet corn, sweet potato, turnip greens, watermelons.

VITAMIN D—Prevents rickets in infants and softening of bones in adults. Important in formation of teeth and maintenance of their normal structure. Essential for proper utilization of calcium and phosphorus.

Sources—Cod liver oil and some other fish liver oils, salmon, sardines, herring, eggs, butter, milk and liver.

VITAMIN E (Alpha-Tocopherol)—Required for normal reproduction and prevention of muscular weakness.

Excellent vegetable sources—lettuce, watercress.

Good vegetable sources—barley, beans, whole corn, oats, rice, wheat, peas, peanuts.

Other sources—Wheat germ oil, cottonseed oil, certain vegetable oils.

VITAMIN VALUES

A guide to the vitamin contents of garden vegetables
(Values below indicate vitamins in one-half cup (3.5 oz.) servings of garden vegetables)

	Vitamins				Minerals	
	International	and Sherman	Units		Grams	Milligrams
	A	B ₁	C	G	Calcium	Iron
Average Vitamin Pill	1650	110	200	165	.125	3.3
Beans, Green	1000	25	300	40	.055	1.16
Beets	35	—	100	50	.028	0.85
Beet greens	12000	—	1000	150	.094	3.24
Broccoli	9000	37	1400	75	.140	1.37
Brussels Sprouts	200	60	1500	—	.027	1.17
Cabbage	100	25	1200	20	.046	0.43
Carrots	2100	20	100	20	.045	0.64
Cauliflower	30	50	1500	35	.022	0.94
Celery, bleached	10	10	100	—	.051	0.22
Celery, green	1000	10	100	10	.078	0.62
Collards	7000	50	800	100	.202	1.66
Corn, White	50	45	200	—	.004	0.27
Corn, Yellow	500	45	200	20	.006	0.47
Cucumber	20	15	200	8	.006	0.33
Endive (escarole)	15000	28	400	40	.029	1.53
Kale	20000	50	2500	200	.181	2.54
Lettuce, head	100	25	250	15	.017	0.50
Lettuce, loose-leaved	4000	25	250	75	.069	1.5
Lima Beans, green	500	115	600	100	.028	2.40
Mustard greens	13000	45	2500	375	.221	0.50
Onions	—	25	275	28	.041	0.48
Peas	1000	140	500	65	.023	2.07
Peppers	5000	10	2500	40	.012	0.40
Potatoes, sweet	3500	30	400	30	.020	0.77
Potatoes, white	30	40	250	15	.013	1.02
Spinach	25000	40	1500	125	.78	2.55
Squash, summer	1000	15	—	5	.18	0.35
Squash, winter	4000	15	100	25	.19	0.55
Tomato	1000	25	450	15	.007	0.40
Turnip	20	12	600	12	.056	0.52

The Care and Culture of Root Crops



Root crops must penetrate the soil to a considerable depth. They cannot be grown in stiff clays.

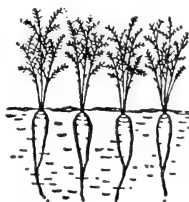
Carrots and beets are especially in demand as table vegetables and are particularly suited for canning. Parsnips and turnips are equally delicious and may be stored over winter.

Better plants result from careful cultivating and weeding.

Thin seedlings as soon as big enough to handle. No matter how sparsely you have sown the seed, early

thinning is important to proper growth.

Beets are best when from 1 in. to 2 in. in diameter. Beet tops, too, are deliciously tender at this size. Turnips are at their best at this size also—parsnips after a frost.



Pluck carrots before they are full grown. This is when they are most tender and best suited for canning as well. Store larger sizes.



Steps in the Culture of Sweet Corn

Sow seed in hills 3 ft. to 4 ft. apart each way, about 5 seeds to the hill. Don't do your planting until the ground is warm. For good supply, plant 3 times, 3 weeks apart.

Thin out to 3 strong plants in each hill when 5 in. high. Light dressing of ni-

trate of soda previous to or during rain will hasten the growth of young plants.

Working the soil is extremely important to good growth. Hoe at least weekly until 3 ft. high. Do not work so close to the plant as to endanger the roots.



Sweet corn is most delicious 21 days after silking. Judge when corn is ready to pick by feeling whether the kernels make the husk tight at the tip instead of stripping back the husk. Pick corn just before it is to be cooked or used for canning.

For Best Results with Tomatoes

Set out when apple blossoms fall. Staked plants produce better fruit and can be set 24 in. apart in rows 3 ft. apart. Avoid soils fertilized this year with fresh manure. Give light feedings every 3 weeks after flower buds appear.



soil about them cultivated and free from weeds.

Trim lower leaves and suckers as plant grows. Do not allow branching formation. Tomato plant culture is easier if growth is confined to the main shoot.



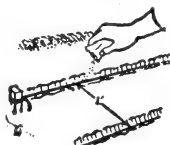
Plant 3 ft. apart each way. Fill hole with water before placing plant. Cover to protect from sun. Keep the



Stake the plants when 12 in. high by use of sturdy 6 ft. stake set 4 in. from plant. Tie plant to stake as the height increases, using soft twine.

How to Grow Head and Leaf Lettuce

Plant leaf lettuce as soon as the ground can be worked in the spring. Head lettuce planting can follow about two weeks later; make permanent transplanting when second set of leaves appears. Leaf lettuce is higher in vitamins than head lettuce.



Leaf lettuce can be left right in rows. Thin it out somewhat and allow it to grow along. When picking, cut off with shears just above ground—a new crop will grow.

Sow seeds in shallow drills a foot apart in early spring. Keep sowing every three weeks until midsummer. In this way you'll have lettuce for the table all season long.



Grow head lettuce by transplanting at 12 in. intervals the small plants grown from seed of heading variety. These plants are fragile and need protection from sun.

About RADISHES

The secret of getting crisp, delicious radishes is quick growth. So use plenty of plant food in the soil where they are planted. This is undoubtedly the easiest of all vegetables to grow; the seeds germinate in a few days, and are ready for eating in 3 to 5 weeks.

All through the planting season, a succession should be sown every 10 days, so that you may have plenty of mild, tender radishes for relish and salads all through the season.

About CUCUMBERS

FOR SMALL PICKLES (gherkins)—Cucumbers should be gathered when only 2 or 3 inches long—about six weeks after sowing.

For "dill" size pickles, they should be 4 to 6 inches long. FOR SLICING—they are best when plump and cylindrical—but before they bulge in the middle or develop a yellow tinge at the blossom end.

Farm Seeds

LAWN

ALFALFA

Rich in proteins and lime—hence a great feed crop for dairy cows, beef cattle, hogs, sheep. A marvelous soil builder and soil restorer, too, when properly inoculated.

We carry a full range of selected Alfalfa varieties, all well suited to the needs of this territory, and of the highest quality.

CLOVERS

Medium Red—The most valuable of the Clover family. Makes two crops the second year. Does not exhaust the soil, but enriches it.

Sweet, White Blossom—Most abundant growth of any of the Clovers. Makes a pasture earlier than other crops and will keep stock in good condition until winter regardless of heat and drought. Use to build up worn out fields.

Alsike—Very hardy. Does better on moist land than other varieties of Clover. Suitable for hay or pasture. When sown with other grasses, forms a thick undergrowth and greatly increases the yield. Frequently sown both with Medium Red Clover and with Timothy, and the quality of hay thus produced is excellent. Finer and more leafy than Medium Red Clover and cattle prefer it.

SEED CORN

More and more, the problem of choosing seed corn is becoming a local problem. It's of prime importance to have the varieties that best fit your own growing conditions.

Our selection of seed corn is built on intimate knowledge of this district—and conscientious application of that knowledge. So you are always in good hands when you buy seed corn here.

Other Clovers—Space doesn't permit listing of all our offerings of Clover. We have all the varieties common to our section, each one selected and handled with expert care and caution, so as to assure you the top yields and best quality.

GRASSES

Orchard Grass—Hardy, quick-growing. Gives a large yield of excellent hay. May be cut several times during season. Not recommended for lawn use.

Rye Grass, Domestic—Fast-growing one-year grass. Makes a full crop, yields abundantly, and matures all in one season. Helpful as a nurse crop to other grasses.

Sudan—The ideal emergency hay and pasture crop for late planting. Never plant until ground is thoroughly warmed.

Timothy—Unsurpassed as a crop for hay. Relished by all kinds of stock, especially horses. Not suited for permanent pasture.

Brome Grass—Drought defying, resistant to frost and extreme heat alike. Starts 2 to 3 weeks earlier than native prairie grasses, and stays green later in fall. Produces abundant pasture and enormous crops of high grade hay.

Rape—One of the very finest pastures for economical production of pork, mutton, or beef. A good crop gives you 12 to 15 tons of green food per acre.

SEED POTATOES

Our Certified Stocks are the most economical you can plant, because they reduce your hazards, give you bigger production and fewer culs. They are true to name . . . grown especially for seed stock . . . more highly disease resistant . . . tagged for origin.

Soy Beans—The crop of many purposes. Excellent for hay, ensilage, grain, and soil improvement. Ground soy beans are as good or better than Oil Meal for mixing with your grains in a balanced dairy ration.

We offer the highest quality seed of a good range of varieties. Consult us about the choice of varieties best suited to your own needs.

Vetch—A great producer, for hay, pasture, or silage. Good cover crop and soil builder. May be sown spring or fall, is not particular as to soil, and needs only moderate moisture.

SEED PER ACRE AND BUSHEL WEIGHTS

	Lbs. per Bu. per Acre	
	Bu.	Acres
Alfalfa	60	15 to 20
Barley	48	96
Brome Grass	14	15 to 20
Buckwheat	50	50
Clover, Alsike	60	8 to 10
Clover, Medium Red	60	10 to 12
Clover, Mammoth	60	8 to 12
Clover, Sweet	60	12 to 15
Clover, White	60	5 to 8
Cow Peas, broadcast	60	60 to 90
Flax, broadcast	56	25 to 30
Grass, Kentucky Blue	14	20 to 30
Grass, Orchard	14	22
Kaffir Corn, broadcast	56	40 to 50
Millet, for hay	50	50
Millet, for seed	50	30
Oats	32	64 to 96
Rape, broadcast	50	6 to 8
Reed's Canary Grass	32	4 to 6
Rye, broadcast	56	56 to 84
Sorghum, for fodder	50	50 to 60
Soy Beans, broadcast	60	30 to 45
Soy Beans, in drills	60	60 to 90
Sudan Grass, broadcast	40	20 to 25
Sudan Grass, in drills	40	8 to 10
Timothy	45	10 to 12
Vetches, broadcast	60	50 to 60
Wheat	60	90

Best Lawn Mixture—Our selected lawn mixture is the very finest combination of high quality seeds . . . a marvelous mixture that years of experimenting have proved to be safe and sound. It produces a lawn like a carpet of green velvet . . . smooth, even, and thick. All the grasses in it are fine-bladed and deep-rooting.

Shade Mixture—Wherever shade makes it difficult to obtain a good lawn, our special shade mixture is heartily recommended. Excellent quality, shade-enduring grasses and clovers . . . blended into a mixture that will give surprising results.

Kentucky Blue Grass—Produces a deep dark green lawn of close, thick turf. Maintains its green color until late in fall. Roots are deep, plants very hardy.

White Clover—Very desirable in lawn mixtures because of its rapid, low growth and creeping stems. Valuable as a green cover for poor ground. Very hardy.

Rye Grass—A rapid grower, valuable in lawn mixtures demanding quick effect. Not long lasting. Good in moist soils.

Chewing Fescue—Widely used for putting greens, fairways and tees. Very hardy, produces thick, durable turf, even under unfavorable conditions.

Red Top—Particularly suitable for wet, low spots, as it stands wet weather, or even overflowing, better than other grasses. Also does well on almost any good, rich soil. Often thrives where blue grass fails. However, it should not be considered as competitive with blue grass, but as a good supplement for it.

Bent—Makes a thick, dense turf on heavy, sour soils and being of a semi-creeping habit will recover the ground after injury. Unexcelled for fine lawns and putting greens.

HOW TO FIGHT CRAB GRASS

Crab grass is an annual which propagates itself by re-seeding. During early growth it looks much like grass, but when it matures and spreads it is easily recognized by its "fingered" head. Full grown, it smotheres out the grass.

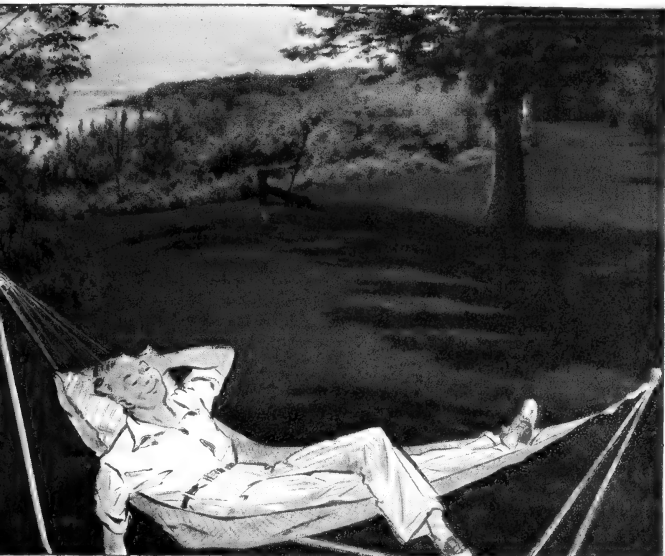
Crab grass doesn't start until warm weather. Therefore, the first step in fighting it is to plant plenty of good seed early, and fertilize early. When the lawn has a vigorous start, it doesn't give the weed an opening.

Next, before last year's crab grass seed has a chance to sprout, treat the lawn with lead arsenate, 20-25 lb. per 1000 sq. ft. applied as dust or spray. Damage to the blue grass will be avoided if the treatment is followed by application of a fertilizer rich in nitrogen.

Where crab grass actually has appeared, a direct chemical attack is necessary. New "selective" killers have now been perfected which kill the pest without permanent injury to the lawn. (Ask us about them.)

Along with these methods of attack, the ordinary routine of mowing, watering, and fertilizing should be regulated to help the fight. High cutting helps, because a thick mat of grass has a better chance to smother crab grass seedlings.

Watering infrequently but heavily helps, too, because the young seedlings can't reach the deep moisture. Fertilizing should be done well before the crab grass season, or after it.



For Shady Spots

Wherever shade makes it difficult for you to obtain a good lawn, our special shade mixture is heartily recommended. We have chosen excellent quality, shade-enduring grasses and clovers... and blended them into a mixture that will give you surprising results.



For Sunny Lots

We offer you a fine mixture of sturdy, hardy grasses that thrive in locations exposed to the blazing sun. Because weed control is more difficult in sunny places, our special mixture contains vigorous grasses that will starve weeds out and help give you the weed-free lawn you desire.



For Special Uses

We have just the right grass seed for every special purpose. We can give you special deep-rooted grasses for the sloping lawn... the ideal grasses for the planting on golf courses, parks, estates or cemeteries... or for any other special use. Just tell us what you want.

CHECK LIST for LAWN CARE

★ **When May Seeding Start?** Cold weather (even freezing temperature) doesn't harm grass seed. So you may start spring lawn work long before you can get at the flower garden. (Only standing water harms grass seed.)

★ **Seed Early Under Trees.** Early seeding under shade trees gives the grass a chance to get well started before leaves appear on the trees to rob the grass of food and light. Once established, it also thrives better in the shade.

★ **Keep After Those Shady Spots.** You may have to re-seed one or more times to get a good stand under trees or in other shady spots. But persistence pays.

★ **Tree Feeding Helps Lawns.** Trees compete with the grass for food. If a tree is well fed, it doesn't rob the grass into starvation.

★ **Sow Seed Properly.** Take great care to get even distribution. Sow half the seed lengthwise, the other half crosswise.

Seed on a calm day, or early in the morning, so that seed will fall where you want it. Rake it in lightly, cover with about 1/8" of fine soil, and roll so as to keep seed firmly in place.

★ **Seed in Midsummer?** While early spring and late fall seeding is the most productive, don't hesitate to plant in midsummer. Keep after the thin or bare spots! (When you seed in midsummer, take particular care with watering and weeding.)

★ **Seeding on Slopes.** To prevent seed from washing away, and to keep the soil moist for the seedlings, cover the newly seeded slope with loosely woven burlap, tightly drawn and staked. Or

use the new, coarse netting now made for this purpose.

★ **Top Dressing Helps Mightily.** You can give new seedlings a better start, help old grass spread out, and true up the surface by proper top dressing. Use a bushel of good, rich, weed-free soil per 100 sq. ft., with a little extra in the low spots.

If your soil has too much clay in it, include sand in your top dressing. If too sandy, work in some clay.

★ **When and Why to Roll.** Use the roller in spring, to press the soil down firmly around the grass roots, where winter has disturbed them. This is the only legitimate use for rolling.

★ **Don't use a roller to level the lawn.** Top dressing does a better job and more easily.

★ **Don't roll** when lawn is wet or sticky, as this makes the soil too compact.

★ **Don't use** too heavy a roller. A water-ballast roller, empty or not over 1/3 full, is heavy enough.

★ **Don't roll** too often; you'll pack the soil too tightly around the roots.

★ **Feed New Grass Well.** Before seeding always apply a good fertilizer to help the new plants when they need help most—during their early growth. (Don't use fresh manure; it almost always contains weed seeds.)

Use a mechanical fertilizer distributor to insure even spreading of the grass food, or mix fertilizer with top dressing.

★ **Don't Leave Leaves!** Dead leaves smother grass. They're worthless as fertilizer unless composted until fully decayed. A well-selected variety of grass

seed doesn't need winter protection. So—remove dead leaves.

★ **Mowing the New Grass.** Before its first mowing, roll the new area to firm soil around the new roots to hold them in place.

Wait until grass is 2" to 3" high before the first mowing, but not so high as to topple. Set mower to cut about 2" high.

Old or new, lawn grass should not be mowed extremely close. Very close cutting, unless done extra-frequently, will injure the grass by sudden exposure to the sun, after it has been shaded by dense growth.

Mower clippings left on the lawn benefit it, unless in sufficient quantity to smother the grass.



BULBS and TUBERS for Spring Planting

DAHLIAS

Avalon—Fine form, bright golden-yellow. Blooms freely.

Jersey Beauty—Supreme among pink Dahlias.

Jane Cowl—Deep, massive blooms, buff and old gold petals curled and twisted.

Mrs. I. De Ver Warner—Large blooms, old rose suffused lilac.

Jersey Beacon—Chinese scarlet, lighter reverse. Long stems.

Thomas A. Edison—Gorgeous blooms of rich royal purple.

Kentucky—Salmon-pink with yellow and gold blend.

Monmouth Champion—Huge brilliant orange flowers, perfect stems.

White King—Magnificent large blooms, pure snow-white.

Pompon Dahlias—Charming "button" dahlias that require little care but reward you with gorgeous, cut-flowers summer and fall. In mauve, pinks, red, white, bronze, yellow.

CANNAS

King Humbert—Gigantic flowers, orange-scarlet, with bright red markings. Bronze leaved. 5 feet.

Yellow King Humbert—Golden-yellow, dotted red. Green foliage. 4 feet.

President—The best red Canna. Immense flowers of rich scarlet. Green foliage. 4 feet.

Hungaria—The best true pink Canna. Large flower trusses; green foliage. 3½ feet.

Wintzer's Colossal—Largest flowering. Vivid, blazing scarlet. Green foliage. 5 feet.

CALADIUM

Fancy-leaved Caladium—Few summer foliage plants can equal it for rich, beautiful color and dramatic effect.

Elephant's Ear—One of the largest ornamental plants for beds and borders. Huge green leaves give unusual effect.

TUBEROSES

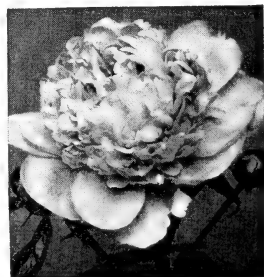
One of the most fragrant of all flowers. Tall spikes of double waxy blooms borne on tall stems. Spear-shaped, grass-like foliage. Annual replacement frequently advisable.

LILIES

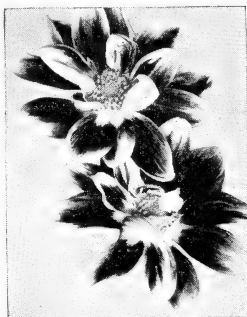
Few flowers in the garden provide such regal beauty as lilies, and few are so hardy. Let us suggest the varieties that will thrive best in your garden.

PEONIES AND IRIS

We offer an excellent selection of finest Peonies and Iris in new varieties and old favorites. Our Peonies may be planted in the spring and will do well the same year.



DAHLIA, Incurved Cactus



DAHLIA, Collarette

GORGEOUS DAHLIAS are not hard to grow

There is nothing difficult about growing dahlias. Cultural requirements are very simple.

Dahlias need drainage and moisture, rather than fertilizer. One-half sand and one-half loam makes the ideal soil—with just a fair amount of fertilizer. Excessive richness—particularly too much nitrogen—makes dahlias run to stem and leaves at the expense of the flowers.

Planting—Dig a good-sized hole—about 16 inches deep. Fill it halfway with properly conditioned soil, firming this well. Drive stakes before planting so that no damage will be done to new roots. Plant the tuber flat, with the sprout nearest to the stake. Cover the crown with only 2

inches of soil. When growth has risen above this soil, fill in about 2 inches more, and repeat at intervals until the hole is filled. This method leaves the tuber deep enough to be cool and moist during hot weather.

Mulch the plants in August with 2 inches of humus or peat to keep the ground cool and conserve moisture.

Do not plant too early. Dahlias are very susceptible to cold.

Disbudding helps produce the finest blossoms. Let the top bud and buds at ends of branches develop, but remove buds appearing close to the main stem.

Dahlias need abundant air and sunlight but should be protected from high winds.

GLADIOLUS

Recommended as the best all-around varieties

Betty Nuthall—Coral-pink, yellow throat markings. Florets of fine texture, large, strong spikes.

Bagdad—Smoky old rose, lighter throat. Very large, 6 to 8 florets on tall, straight spike. Late.

Commander Koehl—Fine red. Tall spike. Florets very large, dark scarlet without markings.

Charles Dickens—Bright, radiant purple. Many blooms open at a time, perfect placement.

Dream of Beauty—Large rose-red. Tall, strong grower.

Dr. F. E. Bennett—Fiery orange-scarlet. Very large flowering.

Debonair—LaFrance pink, shading into shrimp pink, creamy throat blotch. 6-8 medium size blooms.

Giant Nymph—Light salmon-pink, creamy yellow in throat. Giant flowers. One of the best.

Golden Dream—Clear, golden-yellow flowers, medium size, tall stems, many open at a time. Late.

La Paloma—Vivid orange, inconspicuous white spearhead in throat. Large flowers; tall spike.

Mother Machree—Smoky lavender overlaid at edge with salmon-pink. 8-12 medium size blooms. Late.

Minuet—Clear light lavender, very large flower of heavy substance. One of the best lavender.

POMPON DAHLIAS

Charming "button" dahlias—easy to grow available in Mauve, Pink, Red, White, Bronze, Yellow.

(See Page 24 for complete list of dahlia varieties.)

Maid of Orleans—Milky white, with light cream throat. Tall spike, 6-8 perfectly placed florets.

Margaret Fulton—Rich soft dark clear salmon. 6-8 well placed medium size blooms.

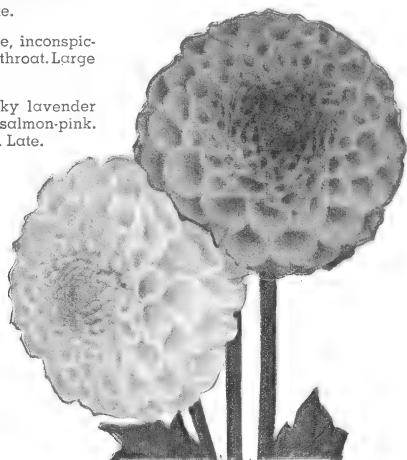
Picardy—Rich apricot-pink. Florets extremely large, slightly ruffled and of wax-like appearance.

Pelegrina—Dark blue, 6 or more well placed blooms open with most of remaining buds showing color. Early. Best dark blue.

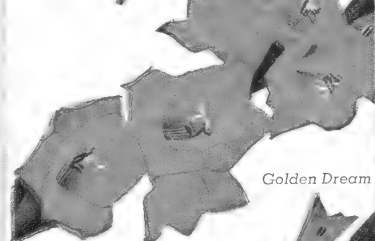
Red Phipps—Unusual shade of light red. Medium tall, long flower heads. Late mid-season.

Vagabond Prince—Iridescent mahogany brown, lighter in throat. Small scarlet blotch on lip. 8-10 medium size blooms open at a time.

Wasaga—Clear glowing buff with 4-5 flowers open at a time. Ruffled. Late mid-season.



Betty Nuthall



Golden Dream



Dr. F. E. Bennett

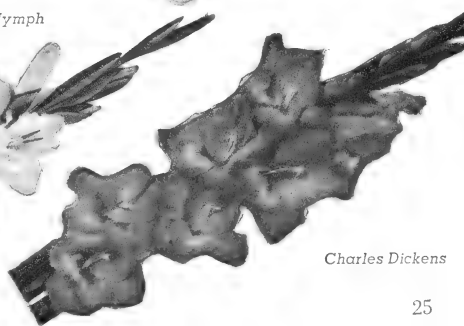


Minuet



Picardy

Giant Nymph



Charles Dickens

Flower Seed Department

Now, more than ever, the world needs beauty

KEY TO SYMBOLS

The symbols after the name of each flower give you the following information:

- (a) — Annual
- (b) — Biennial
- (hp) — Hardy Perennial
- (hhp) — Half-hardy Perennial

- — Suited to full shade
- ◆ — Suited to semi-shade

For key to cultures see page 31.

ANNUALS

(See Pages 33 and 35 for Perennials.)

AGERATUM (a)

Culture II. Cover $\frac{1}{8}$ -in. Ht. various. Blooms early summer to frost.

Blue Cap—New, dwarf. Rich, deep blue. 6-in. plants. Pkt. 15c.

Blue Perfection—Deep amethyst-blue. 9-in. plants.

Midget Blue—1940 All-America. Compact 2 to 3-in. plants. Azure blue. Pkt. 25c.

ALYSSUM (a) ◆

ANNUALS. Culture II. Cover $\frac{1}{4}$ -in. Ht. various. Blooms early summer to frost.

Carpet of Snow—White flowers. Plants about $1\frac{1}{2}$ -ft. across and only 3-in. high.

Little Gem—Clouds of honey-scented white flowers.

Lilac Queen—Lavender-lilac flowers, 6-in. plants.

Violet Queen—Dwarf, compact, free flowering. Small, sweetly scented flowers; rich, deep shade of violet. Pkt. 15c.

ANCHUSA, Blue Bird (a) ◆—Culture II. Cover seeds $\frac{1}{8}$ -in. Sprays of indigo blue flowers; 20 to 24-in. compact plants.

ANTIRRHINUM (a) ◆ (Snapdragon)

Culture I. Cover $\frac{1}{8}$ -in. Ht. various. Sow early. They germinate slowly.

Maximum Giant—Rust-resistant. Best for wealth of flower-spikes. Pkt. 15c.

Majestic (Giant-Flowered Semi-Tall)—Rust-resistant. Flowers are large, but plants semi-tall. Pkt. 15c.

Half-Dwarf or Intermediate—Also called "Bedding." Large blooms; plants 15 to 18-in. Pkt. 15c.

ARCTOTIS (Blue-eyed African Daisy) (a)—Culture I. Cover $\frac{1}{8}$ -in. Ht. $2\frac{1}{2}$ -ft. Midsummer to frost. Prefers sun.

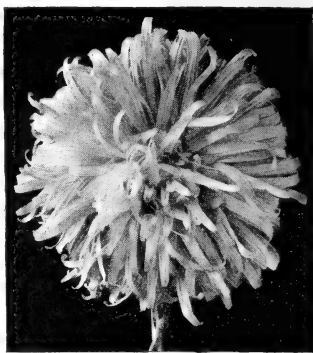
Grandis—Pure white blooms, bluish center with gold band.

ASTER (a)

Culture I. Cover $\frac{1}{8}$ -in. Ht. various. Need rich soil, good sun.

American Branching—Most popular. $3\frac{1}{2}$ to 4-in. double blooms. Branching. Plants 2 to 3-ft. Long stems. All colors.

California Giant Improved—5-in. double flowers, with long curled petals; stems $1\frac{1}{2}$ to 2-ft. long. Branching 2 to 3-ft. plants. All colors.



ASTER, California Giant

Giant Crego (Wilt-resistant)—Flowers 4 to 5-in. double, with ribbon-like petals curled and twisted. Vigorous, branching 2-ft. plants. Long stems. All colors.

Giant Crego Navy Blue—1943 All-America. Large 4-in. long petaled double flowers, deep purple blue, almost blackish blue. True, uniform, 12 to 20-in. branching plants. Pkt. 25c.

Queen of the Market (Wilt-resistant)—First to bloom. Nearly round, double, 3-in. flowers, long stems. Plants 18-in., spreading. All colors.

BABY'S BREATH—See Gypsophila.

BACHELOR'S BUTTON (a)

(Centaurea or Cornflower)

Culture IV. Cover $\frac{1}{4}$ -in.

Blue Boy—Very fine, fully double. Blue. Pkt. 15c.

Jubilee Gem—All-America 1937. Compact 1-ft. plants, completely covered with large, double, deep blue flowers.

Blue—Universal favorite.

Red Boy—Deep glowing red.

White—Glistening snow-white.

Mixed—

BALLOON VINE (Love-in-a-Puff) (a)

—Culture III. Cover $\frac{1}{2}$ -in. Ht. 8 to 10-ft. Prefers warm location. Rapid-growing climber with white flowers, succeeded by small, balloon-like seedpods.

BALSAM (Lady-Slipper) (a) ◆—Culture II. Cover $\frac{1}{4}$ -in. Ht. 2-ft. Double, camellia-like flowers. Wants partial shade, plenty of moisture. Sow late.

NEW! 1944 All-America Awards



PETUNIA, Cheerful

PETUNIA, Cheerful—Winner of Medal Award. Blossoms of clear, light pink, with slight suffusion of salmon, are large, single, $2\frac{1}{2}$ -in. flowers covering compact, mound-shaped plant. Grows to 1 ft. Suitable for bedding, for pots and window-boxes. Starts blooming almost as soon as plants are set out, continues until frost.

MARIGOLD, Mammoth Mum—Huge flowers (4 to 5 in. across and 2 in. deep) are incurved, Chrysanthemum-type, of rich lemon-yellow. Blooms from August until freezing weather. Foliage is rich, dark green and ornamental.



MARIGOLD, Mammoth Mum

All Flower Seeds
10c PER PACKET
except where otherwise noted

Garden Guideposts

FOR BETTER FLOWERS FROM SEED

Practical Hints on an Important Subject

WHEN AND HOW TO TRANS-PLANT—When the plantlets have fully developed their second pair of leaves, or "true" leaves as they are called, it is best to transplant them either to flats about three inches deep or to small pots. Remove them from the seed bed gently to damage the roots as little as possible and plant somewhat deeper than they originally grew, so that the stems will be well supported.

A good procedure, to assure the largest possible root surface, is to cut the soil at right angles with a sharp knife from top to bottom and transplant with the soil.

Be sure to make the hole—with the forefinger or a small stick—sufficiently large to take the roots in a natural position without crowding. With the tips of the thumbs and forefingers press the soil very firmly about the roots—not merely against the stems on the surface.

HOW TO FEED SEEDLINGS

When the seedlings have reached the stage of transplanting they require more plant food than they had in the seed flat mixture. Mix one teaspoonful of complete fertilizer with each bushel of soil mixture to make it fertile. One bushel of soil will take care of a great many plantlets.

TEMPERATURE AND LIGHT—The transplanted seedlings should be kept at a temperature of 45 to 50 degrees. If they are kept near a window, turn the boxes each day, otherwise the plants will lean towards the light and grow lopsided or spindling.

THE RIGHT SOIL—Soil should be comparatively light in texture and preferably not too rich in plant food. One-third garden loam, one-third peat moss and one-third sharp sand will grow healthy seedlings. The root systems made by the plants in a soil mixture after this formula are truly wonderful.

WHEN RE-POTTING IS NECESSARY—As the little plants grow they may need to be shifted to larger pots to keep them in good growing condition up to the time the weather permits their being planted outdoors. This transplanting should be done when the roots have formed a mat around the inside of the pot. Usually it is best to change to a pot only one or two sizes larger than that in which the plant has been growing. As before, the plant should be kept from wilting as much as possible for the first few days after being repotted.

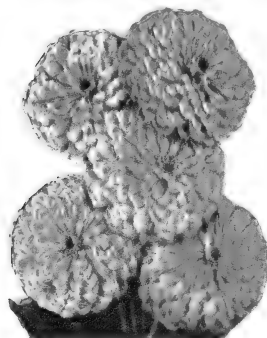
SLOW PERENNIALS—Some perennial seeds are slow to germinate, so if seeds don't sprout within a week or so, don't be worried. That is, don't be worried if you have faithfully followed directions.



COSMOS, Yellow Flare—All-America 1942. First yellow Cosmos ever developed. Single, 2 to 2½-in. flowers, massed on 3-ft. plants. Pkt. 15c.



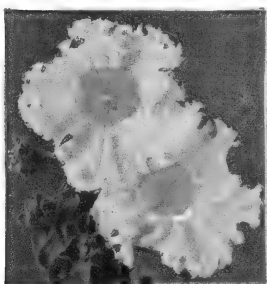
ZINNIA, Fantasy, Melody—A new color. Medium-sized shaggy flowers, petals finely curled. Plants 2½ ft. Bloom early, last all summer. Pkt. 15c.



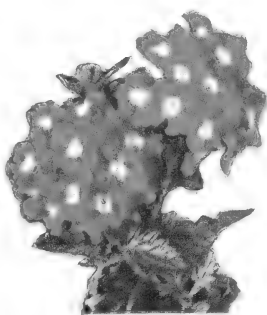
ZINNIA, Super Crown O'Gold Pastel Tints—Showy 5 to 5½-in. flowers in a variety of charming pastel colors. 3-ft. plants. Pkt. 25c.



DAHLIA, Unwin's Ideal Bedding, Mixed—Miniature double and semi-double colorful flowers; dwarf bush 18 to 24-in. plants. Long-lasting cut flower. Pkt. 20c.

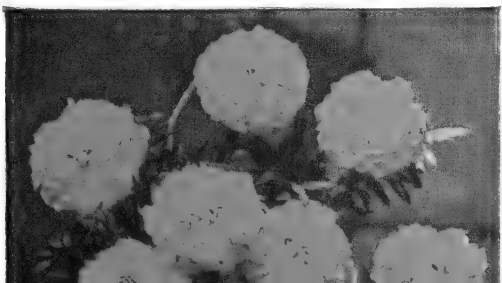


PETUNIA, Theodosia—Large rose-colored flowers with gold throat, single fringed, 3 to 3½-in. Flower when plants are very small. Pkt. 25c.



VERBENA—Bright scarlet. Also in pure white and shades of blue. Mammoth size. Pkt. 10c.

MARIGOLD, Sunkist—1943 All-America. Very early, dwarf French Harmony type. Continuous blooming, 2-in. blossoms cover the 6 to 10-in. mound-like plants. Pkt. 25c.



Recommended NOVELTIES

COSMOS, Sensation Dazzler—1943 All-America. Rich deep velvety maroon flowers, 4 to 5 in. or more across, broad heavy fluted petals which slightly overlap. Long, heavy stems; plants 3 to 4 ft. Pkt. 25c.



COSMOS, Sensation Dazzler



PETUNIA, Igloo

PETUNIA, Igloo—1943 All-America. Small 1½-in. white, single flowers, with yellowish throat. Most uniform, reckless blooming, white hybrida nana compacta ever developed. Early to late. Pkt. 25c.

BLUE LACE FLOWER (Didiscus) (a) Culture I. Cover seeds ¼-in. Ht. 2-ft. Blooms midsummer. Clusters of lavender-blue 2½-in. flowers, like tiny parasols.

BURNING BUSH or FIRE BUSH—See Kochia.

CALENDULA (a)
(Pot Marigold)

Culture II. Cover ¼-in. Ht. 18 to 20-in. Midsummer to frost. Grows anywhere. Stands drought and heat. Transplant to 12 to 16-in. apart.

Campfire Improved—Double 4-in. flowers, deep orange. Heavy stems. Pkt. 15c.

Orange Fantasy—All-America 1938. Rather dwarf, heavily foliaged. Orange, with seal-brown crest of petals. Pkt. 15c.

Orange King—Extra fine, deep orange, dark center.

Orange Shaggy—All-America 1935. Deep orange, lighter centers; Chrysanthemum-like blooms.

Mixed—

CALLIOPSIS (a)
(Tickseed)

Culture IV. Cover ⅓-in. Ht. various. Blooms all summer. Bright varied combinations of color.

Golden Crown—All-America 1938. Improved rich yellow, maroon center. Pkt. 15c.

Tall, Mixed—Finest large and small-flowered varieties.

CAMPANULA (Canterbury Bells) (a)—Culture I. Cover ⅓-in. Ht. 1½ ft. Blooms 5 to 6 months after seeding. Bushy plants, bell-shaped flowers, white, pink, blue and lilac.

Single—All colors.

Single and Double Mixed—Fine for late summer borders.

CANDYTUFT (Iberis) (a) — ANNUALS: Culture III. Cover ¼-in. Ht. 6 to 12-in. Blooms in 8 weeks. Blooms all season if not allowed to seed. Will grow in dry, sandy soil.

White Hyacinth—Large heads of pure white flowers.

Umbellata Mixed—Splendid range of colors.

CARNATION (a)—Culture I. Cover ⅓-in. Ht. 15-in.

Chaubaud's Giant—Double, extra large, clove-scented. Blooms five months after seeding.

CASTOR BEAN (Ricin) (a)—Culture II. Cover seeds ½-in. Broad tropical leaves and brilliant colored fruits. Grows 6 to 15 ft. Needs good soil, ample sun and moisture.

CELOSIA (Cockscomb) (a)

Culture I. Cover ⅓-in. Ht. various. Midsummer to frost.

Childsii Type (Chinese Woolflower)—Forms large heads like wood chenille balls of a bright, rich red. Ht. 2-ft.

CENTAUREA—See Bachelor's Button.

CHRYSANTHEMUM (a)—Culture II. Cover ⅓-in. Ht. 2-ft. Favorite flower for fall bloom. Pleasing color range. Give plenty of room.

Single Mixed—

CLARKIA (a)—Culture IV. Cover ¼-in. Ht. 2-ft. Graceful, erect, bushy plants, many rosette-like flowers set along stem.

CLEOME (Spider Plant), Pink Queen (a)—Culture II. Cover ¼-in. 1942 All-America. A tall, attractive border plant, free from insects and disease, with huge heads of delightful and refreshing pink, without a trace of blue or magenta. The bracts turn to white before falling. Pkt. 25c.

COCKSCOMB—See Celosia.

CORNFLOWER—See Bachelor's Button.

COSMOS (a)

Culture IV. Cover seeds ¼-in.
Dazzler—Rich deep, velvety crimson maroon Sensation. Immense flowers, 4 to 5-in. across, with broad, heavy, fluted petals. 1943 All-America. Pkt. 25c.

Orange Flare—All-America 1935. Early flowering. Vivid orange blooms, 2 to 3 ft. plants.

Orange Ruffles—Semi-double, large, vivid blossoms. Very free blooming over long period, if old flowers are removed. 10 days earlier than Orange Flare. 3 to 4-ft. plants.

Sensation Mixed—Largest, earliest. 4-ft. tall; flowers up to 5-in. across. All-America 1936.

Yellow Flare—All-America 1942. First yellow Cosmos ever developed. Single, 2 to 2½-in. flowers, produced in great masses on 3-ft. plants. Slightly later than Orange Flare. Pkt. 15c.

CUPHEA, Firefly (a)—Culture II. Ht. 10-in. Dwarf, compact, showy plant, 12-in. spread. Small, fiery-red flowers. Pkt. 25c.

CYNOCLOSSUM (Chinese Forget-Me-Not (a)—Culture II. Cover seeds ⅓-in.

Firmament—New dwarf type, with bushy plants and bright blue color. All-America 1939.

DAHLIA (a) Culture I. Cover seeds ¼-in. Usually grown from roots, but interesting to raise from seed.

Unwin's Ideal Bedding—Miniature double and semi-double colorful flowers; dwarf bushy 18 to 24-in. plants. Long-lasting cut flower. Pkt. 20c.

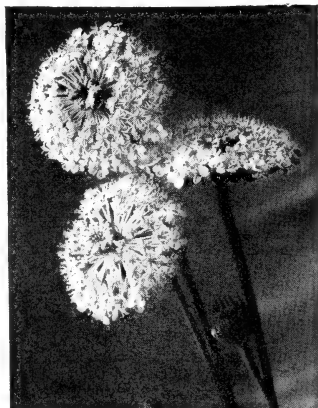
DAISY, AFRICAN—See Arctotis.

DIANTHUS (Pinks) (a)

Culture IV. Cover ⅓-in. Ht. 6 to 12-in. Blooms all summer.

Single Mixed—

Double Mixed—



Blue Lace Flower (Didiscus)

DIDISCUS—See Blue Lace.

DIGITALIS—See Foxglove.

All Flower Seeds
10c PER PACKET
except where otherwise noted

ESCHSCHOLZIA (California Poppy) (a) ♦—Culture III. Cover ½-in. Ht. 1-ft. Midsummer to frost. Prefers sun. Large, silky flowers, red, gold, orange, scarlet, chestnut, pink. Lacy foliage.

EUPHORBIA—See Snow-on-the-Mountain.

EVERLASTING FLOWER (a)

(Globe Amaranth, Gomphrena Everlasting or Clover Strawflower) Culture II. Cover ½-in. Ht. various. Blooms all summer. Retains natural colors when cut in bud and dried. A true Bachelor's Button that may be dried.

Strawflower (Helichrysum)—Large double flowers. Assorted.

FOUR O'CLOCK (a) ♦—Culture III. Cover ¼-in. Ht. 2-ft. Thrives under any conditions. Sweet scented. Red, yellow, rose, white, lilac blossoms open in mid-afternoon.

FOXGLOVE (Digitalis) (b) ♦—Culture VII. Cover seeds 1/16-in. Height 3 to 7-ft. Hardy Biennials for tall borders. Tall spikes of bell-shaped blossoms. All colors.

GAILLARDIA (a)

(Blanket Flower)

ANNUALS: Culture II. Cover ½-in. Ht. 1½-ft. Blooms all summer. Needs full sunshine.

Single Mixed—

Double Mixed—

GLOBE AMARANTH—See Everlasting Flowers.

GODETIA (Satin Flowers) (a) ♦—Culture II. Cover ½-in. Ht. 1-ft. Bushy plants with masses of Azalea-like flowers. Thrives best in moist soil and half-shade.

Double Mixed—Long spikes with pom-pom-like blossoms.

GOURDS, ORNAMENTAL (a)—Culture II. Cover seeds ½-in. Useful climbers, large foliage; singularly shaped. Last years when fully ripened and cured. **Mixed.**

GYPHOPHILA (a)

ANNUALS: Culture II. Cover ½-in. Ht. 1½-ft. Blooms 6 to 7 weeks. Sow two weeks apart for continuous bloom.

White—A pure strain.

HELIANTHUS (Sunflower) (a)—Culture II. Cover ¼-in.

Sun Gold—New! Huge 100% double flowers, free blooming, 4 to 5-ft. tall. Pkt. 25c.

HELICHRYSUM—See Everlasting Flowers.

KOCHIA (Burning Bush or Fire Bush)

(a) Culture II. Cover ½-in. Ht. 3-ft. Close, compact, bright green pyramidal bush, moss-like foliage that turns brilliant red in fall. Fine hedge plant.

LADY SLIPPER—See Balsam.

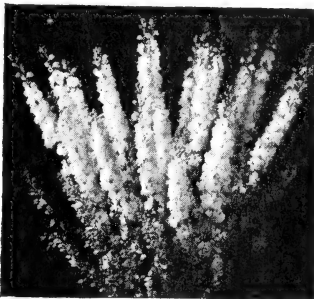
LARKSPUR (a)

Culture IV. Cover ½-in. Ht. 2 to 4-ft. Blooms all summer. Clustered flowers on tall spikes, feathery foliage. Keep faded blooms cut.

Blue Spire, Giant Imperial—Most desirable blue.

White King, Giant Imperial—Large, double, pure white.

Giant Imperial Mixed—



LARKSPUR, Pink Perfection

Pink Perfection—2-in. florets, cutting spike 24-in. or more. Early flowering. Pkt. 15c.

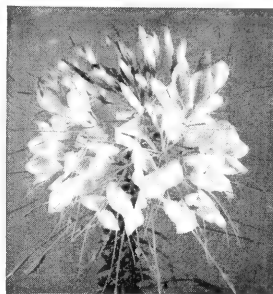
Ruby—An entirely new color. The best red Larkspur ever introduced. Delphinium-like spikes of double flowers, on stems 4 to 5 ft. long. Pkt. 25c.

LINUM (a) **ANNUALS:** Culture III. Cover ½-in. Ht. 15-in. Need sun.

Scarlet Flax—Brilliant glossy-red flowers on delicate stems. Life of individual flower short, but blooming season can be prolonged by successive sowings.

LOBELIA, Crystal Palace (a)—Culture V. Cover 1/16-in. Ht. 4-in. Small, round, compact plants covered with deep blue flowers, dark foliage.

LUPINES (a) ♦—Culture III. Cover seeds ½-in. Midsummer. Prefers light shade. Long spikes of large dark blue, sky blue, rose, or white flowers. **Mixed.**



NEW! Exquisite Pink Cleome

CLEOME, Pink Queen—Great clusters of clear, refreshing pink flowers that turn white as they age. Plants grow 4 ft. high, well branched and vigorous. Make handsome borders, backgrounds and beds for massed color. Pkt. 25c.

MARIGOLD (a)

Culture II. Cover ½-in. Ht. various. Blooms early and late.

Butterball, Dwarf French Double—All-America 1942. Compact, 6 to 10-in. plants; very early. 1½-in. blooms. Pkt. 15c.

Burpee's Gold—Extremely large, sweet-scented, double. Odorless foliage, 2½-ft.

Crown of Gold, Odorless—All-America 1937. Short, quilled center petals, with flat, deep orange guard petals. Branching plant, 2½ to 3-ft. Midseason.

Dwarf Royal Scot—Mahogany red flowers with gold stripes. Plants, 24 to 30-in. Pkt. 15c.

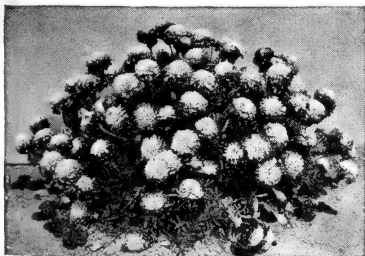
Golden Bedder, Dwarf Chrysanthemum Flowered—1942 All-America. Perhaps the earliest of all Marigolds. Plants form symmetrical mounds, covered with golden orange flowers. A row of outer guard petals is surmounted by fully double crest of petals, miniature flowers. Long stems, nice for cut flowers. A second planting can be made for fall flowers. Pkt. 15c.

Goldsmith—All-America 1942. Golden orange, extra large fully double flowers. Early. 2 to 4-ft. plants. Pkt. 15c.

Guinea Gold—Magnificent golden flowers with carnation-like petals. Plants 2 to 2½-ft.

Harmony Type, French Dwarf Double Hybrids—Flowers 1¾-in., all double. No strong Marigold odor. Plants 12 to 14-in. Combinations of yellow, orange, blotched and striped combinations of orange or yellow with maroon. Earliest of all. Pkt. 15c.

NEW! Dwarf Yellow Marigold



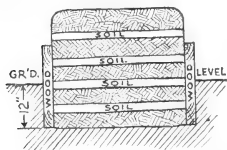
MARIGOLD, Spry—1941 All - America. Profusely blooming, extremely dwarf and compact. Clear yellow flowers 1½ inches across, crested center, with mahogany-red guard petals. Blooms in 9 weeks. Pkt. 15c.

All Flower Seeds
10c PER PACKET
except where otherwise noted

Garden Guideposts

Have a Compost Pile

To assure having sufficient humus for your garden, start a compost pile. In a corner of your garden (perhaps behind a screen of bushes) dig a trench about 1 foot deep, 2 or 3 feet wide, and 3 or 4 feet long. Make frame extending above ground level.



Humus is decomposed vegetable or organic matter. In building a compost pile the idea is to accumulate such matter in a way that will encourage decomposition and increase its plant food value.

After you have a layer of material (grass cuttings, plant leaves, vegetable tops, straw, etc.) 6 inches or more deep, scatter over it a coating of chemicals to aid decomposition (sulphate of ammonia, superphosphate, limestone) and water well. Forking over occasionally and wetting well during the season speeds decomposition. Place a 1-inch layer of earth at about 6-inch intervals to prevent bad odors. (Avoid using diseased plants or weeds, which should be burned.)

Flower Notes

Cut and remove hollyhock, foxglove, phlox and delphinium stalks as fast as they fade. Burn them to keep down mildew and black spot.

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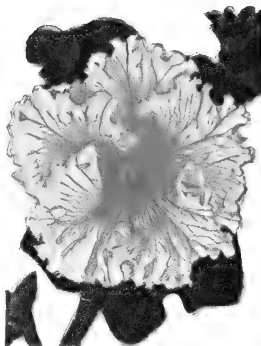
Plants subject to ground pests, such as asters, should have powdered tobacco mixed generously with the immediate topsoil when planted and again just before blooming time. Sulphur and tobacco are usually safe things to mix in the soil around the plant.

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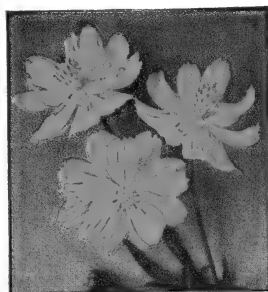
Cultivate often until July first and then, if you wish to avoid labor and watering, try mulching with an inch of peat humus or peat moss, keeping this material slightly away from the stem. This can be raked off in the fall or left to be cultivated into the soil.

• • •

Stake such tall plants as delphinium at once. Tie a raffia strip to the stake first and then to the plant. Remove all blossoms as soon as they fade to induce a prolonged flowering season. A second flowering can be secured from such plants as Canterbury bells by this method. Cut delphinium stalks to the ground after flowering to get new bloom stalks. Pansies bloom continuously if not allowed to seed.

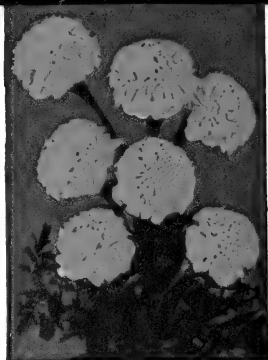
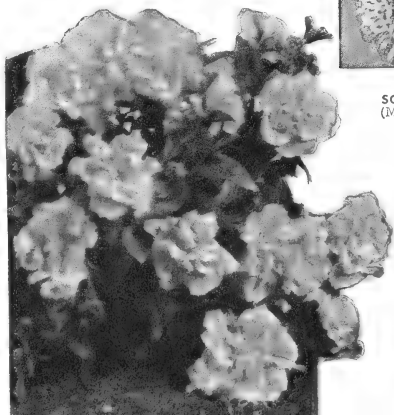


PETUNIA, Glamour — 1942 All-America. Huge 5 to 6-in. blooms; appear when plant is only 5 to 6 in. tall. First appear double, but as they mature, petals fall back, exposing throat. Pkt. 25c.

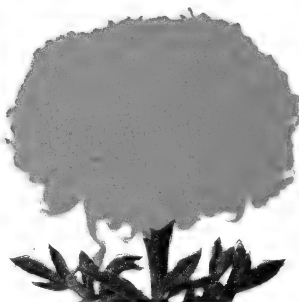


COSMOS, Orange Ruffles—Semi-double, large, vivid blossoms. Very free blooming over long period, if old flowers are removed. 10 days earlier than Orange Flame. 3 to 4-ft. plants. Pkt. 10c.

Now, more than ever, the world needs beauty!



MARIGOLD, Butterball—All-America 1942. Dwarf French double. Compact 6 to 10-in. plants, uniform and continuous blooming. Very early. Scabious-flowered blossoms 1½ in. across. Pkt. 15c.



MARIGOLD, Mission Giant Yellowstone — All-America 1942. Bright, warm, clear yellow flowers, 2½ in. across. Incurred chrysanthemum-like form. Plants, 3 to 5 ft. tall. Late blooming, last until frost. Pkt. 15c.



SCABIOSA, Tall Double Mixed (Mourning Bride or Pincushion Flower) — Very fragrant. Will bloom from midsummer until frost if not allowed to go to seed. Pkt. 10c.

PETUNIA, America All-double — 1943 All-America. The first "double" ever created in America; 100% true for doubleness. Flowers up to 2½ in. diameter. Will bloom from early summer to frost. Pkt. 35c.

Flower Seed Cultures

All flowers listed take one of these eight cultures

CULTURE I

Seeds give best returns if sown in flats in early spring, but good results may be obtained by sowing outdoors after all danger of frost is past. Sow seed at depth indicated under flower descriptions. Water thoroughly with fine spray and place in warm room; watch flats carefully and never let soil become dry. When seedlings appear, remove flats to sunny window. Transplant to other flats as soon as they are large enough to handle, keeping them 2" to 2½" apart both ways. Expose gradually to outside conditions and, when sufficient growth has been made, plant in permanent outside locations. For sowing outdoors, follow instructions given in Culture II.

CULTURE II

May be sown in outside seed-beds and later transplanted, or directly into their permanent location. Spade seed-bed deeply, mix well-rotted manure, or peat moss or humus and a commercial fertilizer, well into the soil; spread an additional half inch of peat moss or humus on seed-bed, and rake well into top surface. Sow seeds at depth indicated, and water thoroughly with a fine spray. When large enough, transplant or thin out. If exceptionally early flowering is desired, follow instructions under Culture I.

CULTURE III

Seeds do not take kindly to transplanting and should be sown outdoors, as soon as danger of frost is over, in beds they are to occupy. Prepare seed-bed same as Culture II. Level off and sow seeds thinly at depth indicated; water thoroughly with a fine spray. After seedlings appear, thin out.

CULTURE IV

Seeds under this culture, being quite hardy, may be sown outside in very early spring, as frosts do not affect their growth to any extent. The seed-bed should be spaded deeply, and fertilizer mixed thoroughly with the subsoil. Plant at depth indicated, and water thoroughly with a fine spray. When large enough to handle, thin out and transplant. For very early plants, sow in fall, leaving plants to winter in their beds.

CULTURE V

Sow in flats in early spring if for the garden; or during the summer if you wish to cultivate them in pots for house decoration. Sow seeds to depth indicated, and water thoroughly with a fine spray. Place in a warm room. As soon as seedlings appear, remove to a sunny window. When large enough to handle, transplant into other flats to stand 2" apart in rows. Trans-

plant outdoors when all danger of frost is past. If for house decoration place in larger pots.

CULTURE VI

Plants are purely conservatory or hot-house plants. Follow instructions for preparation of seed-flat above and sow seeds preferably during spring months at depth indicated. Water thoroughly with a fine spray, and place in warm room. As soon as seedlings appear, remove to sunny window. When large enough to handle, transplant into other flats to stand 2" apart. Later pot up in 2" or 2½" pots and change to larger pots as often as needed.

CULTURE VII

May be sown in early summer in flats or coldframes at the depth indicated. Water thoroughly with a fine spray. Place in a warm room and as soon as seedlings appear, remove to a sunny window. When large enough to handle, transplant into other flats, spacing seedlings 2" to 2½" either way. Later, when they begin to crowd, transplant them a second time. In fall, if well developed, they may be placed in their permanent locations where they are to blossom the following year, or left in the seed-beds for early spring transplanting. **Note:** Only a few varieties under this culture will produce flowers the first year, and all will benefit by winter mulch or protection at least the first season. Seed may be sown in the open, after danger of frost is past, in a seed-bed in which the top soil is finely pulverized and mixed with peat moss or humus. Raise seed-bed several inches above the rest of the garden to prevent seeds being washed out. When plants are sufficiently large, place them in their permanent locations.

CULTURE VIII

Best sown indoors in early spring directly into small pots. Fill the pots with a mixture of good garden soil, composed of two parts soil and one part humus, to within a half inch of the edge of the pot. Firm the soil and place one or two seeds at the depth indicated. Take an ordinary seed-flat, fill with moist peat moss, and plunge the pots into this up to within a half inch of the edge. Water pots thoroughly. Place in a warm room and as soon as seedlings appear, remove to a sunny window, gradually exposing them to outside conditions. When all danger of frost is over remove from pots without destroying the root-ball and plant in their respective places outdoors. If advanced blooming is not desired, seeds may be sown outside as soon as warm weather sets in.

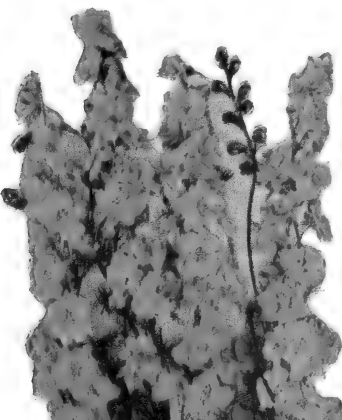


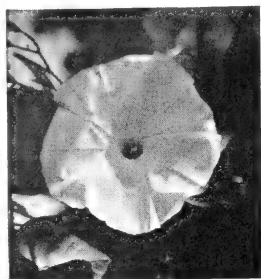
SWEET PEAS, Giant—Flowers of unusual size and beauty, in a wide variety of colors. Vigorous. Pkt. 10c.



POPPY, Iceland, Mixed—Exceptionally fine, huge flowers, beautifully fluted and of soft texture. Extremely long, heavy, wiry stems, fine for cutting. Pkt. 10c.

LARKSPUR, Giant Imperial, Ruby—An entirely new color. The best red Larkspur ever introduced. Delphinium-like spikes of double flowers, on stems 4-5 ft. long. Pkt. 25c.





MORNING GLORY (*Ipomoea*),
Pearly Gates

NEW! Clear White Morning Glory

All-America 1942. Large flowers
(4½ inches across) of clear,
shining white. Vines are vigor-
ous, fast-growing, bloom until
frost. Pkt. 15c.

MARIGOLDS (Continued)

Spry—1941 All-America. Extra dwarf
double French type; about 9 in. tall; 1½
in. flowers, clear yellow crested center,
mahogany-red guard petals. Blooms in
9 weeks. Pkt. 15c.

Sunkist—1943 All-America. Dwarf, com-
pact, very early. Continuous blooming,
six to ten inch mound-shaped plants.
Flowers to 1½ inches across. Pkt. 25c.

Yellow Supreme—Sweet-scented, yel-
low, 3-in. blossoms.

Yellowstone, Mission Giant—All-Amer-
ica 1942. Late blooming. Pkt. 15c.

MIGNONETTE, Sweet Scented (a)—
Culture I. Cover 1/16-in. Ht. 15-in. Dwarf,
with many small spikes of fragrant blos-
soms. Long blooming.

MOON FLOWER (a)—Culture VIII.
Cover seeds ¼-in. Plant in a sunny lo-
cation. Quick-growing vine with dense
green foliage and pure white flowers, 5
to 6-in. across, that open in evening and
on cloudy days. Fragrant.

MORNING GLORY (a) (*Ipomoea*)

Culture III. Cover ¼-in.

Heavenly Blue—Vigorous, quick grow-
ing, with extremely large blue flowers.
Long blooming.

Scarlett O'Hara—All-America 1939. Rich
wine-red or deep rosy crimson blossoms
about 4-in. across.

Pearly Gates—1942 All America. Un-
usually large white flowers, luxurious
foliage. Plant with Heavenly Blue and
Scarlett O'Hara for red, white and blue
effect. Pkt. 15c.

MOSS ROSE—See *Portulaca*.

MOURNING BRIDE—See *Scabiosa*.

NASTURTIUM (a)

Culture III. Cover ½-in. Prefers sunny
location. Thrives in poor soil.

Dbl. Glorious Glean Hybrids—Sweet
scented. Long stems. Compact habit.
Many colors.

Golden Glean—Double and semi-double
fragrant gold blossoms, semi-tall plants.

Golden Globe (Dwarf Dbl.)—Color like
Golden Glean. Dwarf.

Scarlett Glean—Fiery red.

Tall (Trailing) Mixed—

NEMOPHILA (Baby Blue Eyes) (a)—
Culture II. Ht. 6-in. Dwarf, spreading
plants; sky blue flowers, lighter toward
center.

NICOTIANA (a) ♦—Culture I. Cover
1/16-in. Ht. 2½ to 3-ft. Long tubed,
petunia-like blossoms pour rich, spicy
fragrance over the garden morning and
evening.

PANSY (a) ♦—Culture VII. Cover
¼-in. Ht. 6-in.

Swiss Giants—Long stemmed, especially
for cutting. Pkt. 25c.

PETUNIA (a)

Culture I. Cover 1/16-in. Ht. various.
Blooms summer and fall.

America All-Double—1943 All-America.
The first "double" ever created in Amer-
ica; 100% true for doubleness. Flowers
up to 2¼ in. in diameter. Unique mid-
green dainty leaves, smaller than other
Petunias with almost entire lack of
stickiness. Will bloom from early sum-
mer to frost. Pkt. 25c.

Balcony Petunias—Long spreading
plants. Good for window boxes, or over-
hanging effect. Red, White, Blue, Rose,
Mixed.

Cream Star—1940 All-America. Star-
shaped, creamy white centers, sur-
rounded by an aura of white. Free-
blooming, dwarf. Pkt. 15c.

Dainty Lady—All-America 1936. Large,
single fringed, yellow, ringed gold and
cream; compact plants. Pkt. 20c.

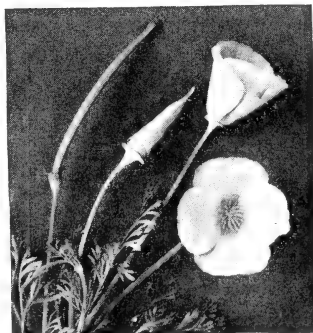
Flaming Velvet—Dark red, single, plain
edged. Pkt. 15c.

Glamour—1942 All-America. Huge 5 to
6-in. blooms; appear when plant only
5 to 6-in. tall. First appear double, but
as they mature, petals fall back, expos-
ing throat. Maximum height of plants 1½
to 2-ft. Pkt. 25c.

Igloo—1943 All-America. Small 1½-in.
creamy-white, single flowers, with yel-
lowish throat. Most uniform, reckless
blooming, white hybrida nana compacta
ever developed. Early to late. Pkt. 25c.

Rose of Heaven—Rose, with inconspic-
uous light throat. Single flowers, dwarf
plants.

Rosy Morn—Medium sized rose-pink
flowers, white throat. Plants, 1 ft. Pkt. 15c.



POPPY, California

Single Bedding, Mixed—All desirable
colors.

Theodosia—Flowers 3 to 3½-in., rose,
with gold throat; single fringed. Flowers
when plant very small. Pkt. 25c.

PHLOX (a) ♦

Culture II. Cover ½-in. Ht. various. Pre-
fers sun. Thrives in almost any soil.

POPPY (a)

ANNUALS: Cover ¼-in. Ht. various.
Grow freely in almost any soil. Prefer
sun.

Shirley Mixed—Ruffled edges, large
blooms.

California—See *Eschscholtzia*.

PORTULACA (Moss Rose) (a)—Cul-
ture III. Cover ¼-in. Ht. 5-in. Thrive in
sunny location and light soil. Fine for
mass planting, edgings.

Double Mixed—

Single Mixed—

POT MARIGOLD—See *Calendula*.

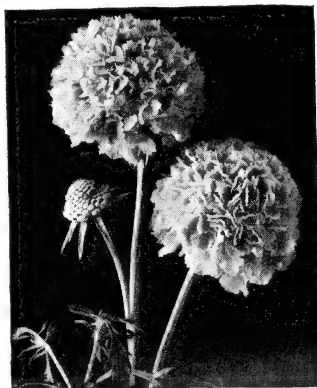
SALPIGLOSSIS (Painted Tongue) (a)
—Culture II. Cover 1/16-in. Ht. 2½-ft.
Blooms midsummer to frost. Large, lily-
like flowers, velvet textured, in many
bright colors.

SATIN FLOWER—See *Godetia*.

SCABIOSA (a)

(Mourning Bride)

Culture II. Cover ½-in. Ht. 2½-ft. Early
summer to frost.



SCABIOSA, Blue Moon

Blue Moon, Imperial Giants—Double
flowers, resembling old-fashioned bee-
hive. Lavender blue. All-America 1939.
Pkt. 25c.

Rosette—Very large; rose, flushed with
salmon. Pkt. 15c.

Mixed—

SCARLET FLAX—See *Linum*.

SNAPDRAGON—See *Antirrhinum*.

All Flower Seeds
10c PER PACKET
except where otherwise noted

SCHIZANTHUS (Butterfly-flower or Poor-Man's-Orchid) (a) — Culture II. Cover ½-in. Ht. 2-ft. Flowers like any butterflies in pastel shades, with dainty markings. Finely lacinated foliage.

SNOW-ON-THE-MOUNTAIN (Euphorbia) (a) — Culture IV. Cover ½-in. Ht. 2-ft. Foliage beautifully edged with white. Prefers sun.

STATICE (Sea Lavender) (a) — Culture I. Cover ½-in. Ht. 1½ ft. Seed germinates very slowly. Masses of dainty flowers in large panicles, giving a mist-like effect. When dried, flowers last for months.

STRAWFLOWER — See Everlasting.

STOCKS (a) ♦

Culture I. Cover ½-in. Ht. 2 ft. Bloom all summer. Like well-enriched soil, plenty of moisture, some shade in hot months.

Giant Imperial — Large flowers, long stems. Very early; many doubles. Pkt. 25c.

Ten Week Stocks — Double rosette-like blooms, fine stems.

Beauty Mixed —

SUNFLOWER — See Helianthus.

SWEET PEAS (a)

Sow very early. Dig trench 1-ft. wide and deep. Place 6-in. rotted manure or peat moss mixed with manure, on bottom, tread down firmly. Fill with good garden soil. Sow one row of Sweet Peas ¾-in. apart. When plants are 3 to 4-in. high, thin to 6-in. apart and provide supports. Need plenty of water; and mulch of peat moss when warm weather approaches. Pick flowers daily.

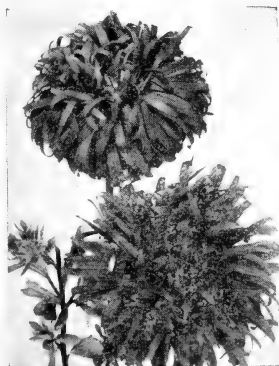
Giant Spencer — Large, well formed, waved flowers, usually four to a stem. Mixed, and in variety of colors.

Giant Ruffled — Large, extra ruffled flowers, double. Mixed and in many colors.

Early Flowering — Well formed, long stemmed flowers; bloom 3 to 4 weeks earlier than Giant Spencer.

NEW, Navy Blue Aster

ASTER, Extra Early Giant Crego Navy Blue — 1943 All-America. Large 4-inch long petaled double flowers, deep purple blue, almost blackish blue. True, uniform, 12 to 20-in. branching plants. Pkt. 25c.



ASTER, Giant Crego, Navy Blue

TICKSEED — See Calliopsis.

TITHONIA, Fireball (a) — Culture I. Cover ½-in. Ht. 6 to 8-ft. Blooms in late summer. Dazzling scarlet, large single flowers. Plant very tall.

VERBENA (a)

Culture I. Cover seeds ½-in. Ht. 15-in. Dwarf plants with very large heads.

Mammoth White —

Scarlet —

Shades of Blue —

Mixed —

VINCA (Periwinkle) (a) — Culture I. Cover ½-in. Ht. 1½ ft. Seeds germinate slowly. Ornamental bedding plant. Flowers star-shaped, with brilliant green foliage. Mixed.

WILD FLOWER MIXTURE — Splendid mixture of old fashioned garden flowers, various kinds and colors, for interesting border planting.

ZINNIA (a)

Culture III. Cover ½-in.

Black Ruby — 1941 All-America. Deep velvety maroon, Lilliput or Pompon zinnia of merit. Distinct color for this class; 1¼ in. flowers, long stems. Plants 18 in. tall. Effective used with lighter colors. Pkt. 15c.

Crown of Gold — Giant flowers, petals deep golden yellow at base, with individual colors at tip. Plants 2-ft. Pkt. 15c.

Dahlia Flowered — 6-in. blooms. Plants 2½ to 3-ft. Most satisfactory Zinnia. Yellow, red, pink, orange. Pkt. 15c.

Fantasy — Great masses of shaggy ray-like twisted petals; 2-ft. plants. **Melody** (orchid-lavender), pkt. 15c; **Star Dust** (clear golden yellow), pkt. 15c; **Wild-fire** (rich scarlet), pkt. 20c; **White Light** (pure white), pkt. 15c; **Mixed**, pkt. 10c.

Giants of California — Huge blossoms, on 3-ft. plants. Variety of colors. **Mixed**.

Lilliput — Straight-stemmed midget pompons. Red, yellow, pink, white, orange and mixed.

Lilliput Pastel Mixture — Plants 12 to 18-in. Pompons 1 to 1½-in. Variegated pastel colors.

Hardy PERENNIALS

ALYSSUM (hp) ♦

PERENNIALS: Culture VII. Cover ½-in. Ht. 3 to 9 in. Blooms early spring.

Saxatile — Dwarf, bushy. Yellow flowers.

AQUILEGIA (Columbine) (hp) ♦ — Culture VII. Cover ½-in. Ht. 1½ to 2-ft. Prefers light shade, fairly rich soil.

Mrs. Scott Elliott's Long-Spurred — Extremely large flowers, wide range pastel colors.

CANDYTUFT (hp)

Culture VII. Cover ¼ in. Ht. 8 to 10 in. Blooms in early spring and summer. Will grow in dry, sandy soil. Dwarf plants, a mass of flowers, pink, lavender or white.

COBAEA SCANDENS (Cup-and-Saucer Vine) (hnp) — Culture VIII. Cover ¼-in.



NEW! Dwarf Cynoglossum
(Chinese Forget-Me-Not)

CYNOGLOSSUM, Firmament — All-America winner. A new dwarf type of Chinese Forget-Me-Not that grows 15-18 inches tall, with blossoms of rich blue color.

Linearis — Single, golden-orange flowers, lemon yellow stripe, brown centers. Dwarf 1-ft. plants.

Mexicana — Miniature yellow, orange and mahogany flowers, frequently variegated. Single and double, on 1-ft. plants.

Navajo Mixed — Bi-colored. Medium sized flowers; 2½ to 3-ft. plants. All-America 1938. Pkt. 15c.

Pumila Sunshine Tints — Symmetrical 2½ to 3-in. flowers, in luscious autumn tints and pastel shades. Very free flowering. Long stems, fine for cutting. Pkt. 15c.

Scabious Flowered — Large semi-globular crown, surrounded by fringe of petals. Plants 2½ to 3-ft. Pkt. 15c.

Super Crown-O-Gold, Pastel Tints — Flowers 5 to 5½-in. Wide range of pastel shades. Pkt. 25c.

Will Rogers — A striking new red, never before available in Zinnias. Very robust plants, literally loaded with mammoth blooms, 6 inches across, and often 4 inches in depth, resembling the Show Dahlia.

Press seeds into soil edgewise. Ht. 30 ft. Large, violet-colored bell-shaped flowers. Rapid growing perennial vine best treated as an annual. Clings to rough surfaces.

COLUMBINE — See Aquilegia.

COREOPSIS (hp) — Culture VII. Cover seeds ¼-in. Ht. 2-ft. Long blooming season. Daisy-like yellow flowers with broad fluted petals. Long stems.

DELPHINIUM (hp) ♦

Culture VII. Cover ½-in.

Giant Pacific Hybrids — Very large, well-shaped florets, tall, slender spikes. Pkt. 35c.

Wrexham Hybrids — Hollyhock-flowered strain. Pkt. 25c.

Planting Guide

FOR THE FLOWER GARDEN

KEY—For classification of flowers by purpose, location, etc., see the second column below. The meaning of the key letters in this column is as follows:

A—For dry, hot locations. E—For edging. I—For their fragrance.
 B—For a succession of blooms. F—For the rock garden. J—For porch or window boxes.
 C—For shady locations. G—For their foliage. K—Climbing vines.
 D—For poor soil. H—Everlasting for winter bouquets. L—For backgrounds.

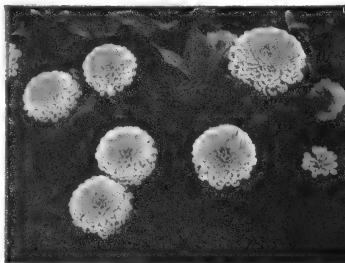
	Height (Inches)	Suitable for	Average Days to Germinate	Approx. Time of Bloom	Shape of Plant
Ageratum	4-12	E F J	5-10	10 Wks.	bushy
Alyssum, Sweet	2-12	B C D E F I J	5-10	6 Wks.	spreading
Antirrhinum	12-60	C I L	20-25	3-4 Mos.	bushy
Aquilegia	18-36	C E F	15	3 Mos.	branchy
Balsam	14-20	A E	10-12	6 Mos.	erect
Calendula	12-36	D	10-14	12-14 Wks.	bushy
Campanula	18-24	F	8-15	10-12 Wks.	bushy
Candytuft	6-18	B F I	5-10	8-10 Wks.	bushy
Centaurea	18-36	A B C D E I J	5-20	3-4 Mos.	erect
Chrysanthemum	24-36	A E	5-20	8-10 Wks.	bushy
Celosia	12-36	D E H	20-25	10 Wks.	bushy
Cosmos	36-60	A	5-15	10-12 Wks.	bushy
Coreopsis	18-36	A B D	10-20	4-5 Mos.	bushy
Dahlia, Dwarf	14	F	10	3-4 Mos.	bushy
Delphinium	36-72	L	15-21	3-4 Mos.	tall
Digitalis	30-48	F	10-20	3-4 Mos.	erect
Dianthus	4-15	F I	5-10	12 Wks.	bushy
Eschscholtzia	10-12	C D F	5-12	12-15 Wks.	bushy
Four O'Clock	24-30	A D	5-10	3-4 Mos.	bushy
Gaillardia	18-30	D	15-20	2-3 Mos.	bushy
Godetia	12-24	C D	15-20	2 Mos.	erect
Gypsophila	18-36	B H	15-20	8-10 Wks.	branching
Helichrysum	24-36	H	5-10	3 Mos.	bushy
Hollyhock	48-84	L	5-20	10 Wks.	slender
Kochia	30-36	A B	15-18	Foliage	bushy
Larkspur, Annual	30-72	L	15-20	10-12 Wks.	tall
Lathyrus	60-72	I K	25-40	2-3 Mos.	vine
Lobelia	4-8	E J	10	10-12 Wks.	bushy
Marigold	8-36	B J	5-8	6-8 Wks.	bushy
Mignonette	10-12	B I		3-4 Mos.	erect
Moon Flower	12 ft. or more	I K	5-8	4-5 Mos.	vine
Morning Glory	12 ft. or more	A K	5-8	3-4 Mos.	vine
Nasturtium	12-36	D E F K	8-15	2-3 Mos.	bush.vine
Nigella	10-18	B F	10-15	10-12 Wks.	bushy
Nicotiana	30-48	I	20-25	10-12 Wks.	branchy
Pansy	4-8	C E F	10-15	10-12 Wks.	clump
Petunia	10-24	D E F J	18-20	10-12 Wks.	bushy
Phlox	10-18	A B C F I J	20-25	8-10 Wks.	bushy
Poppy	18-36	B	20	12-15 Wks.	erect
Portulaca	4-6	A D E F J	18-20	6 Wks.	spready
Salvia	12-42	A	15-25	3-4 Mos.	bushy
Scabiosa	18-30	I	18-20	2-3 Mos.	bushy
Stocks	12-24	I	5-15	12-14 Wks.	bushy
Schizanthus	18-36	C E	20-25	6-8 Wks.	bushy
Sweet Pea	36 or more	K	15-20	10-12 Wks.	vine
Sweet William	12-24	F	10	12 Wks.	bushy
Verbena	6-12	E F J	8-10	12 Wks.	spready
Wallflower	12-18	I	5-12	2-3 Mos.	bushy
Zinnia	12-36	A F	5-10	6-8 Wks.	bushy



HELIANTHUS, Sungold—Brilliant golden yellow, free-flowering, 100% double. Grow 4-5 ft. tall, make a gorgeous massive background. A new sunflower. Pkt. 10c.



PANSIES, Swiss Giants—Ideal for cutting. The plants are strong and hardy; flowers perfectly round, with large overlapping petals in rich colors on long, strong stems. Pkt. 25c.



ZINNIA, Dahlia Flowered—Gorgeous, showy flowers resembling giant dahlias. Blooms 5-6 in. across, 2 in. deep, in lovely pastel shades. Strong, branching plants grow to 3 ft. Pkt. 15c.



NASTURTIUM, Golden Glean—All-America winner in 1933, and today the favorite Nasturtium. Double and semi-double, fragrant blossoms; semi-tall plants. Pkt. 10c.

HARDY PERENNIALS (Continued from Page 33)



GAILLARDIA (hp) (Blanket Flower)

PERENNIALS: Culture VII. Cover ½-in. Ht. 2-ft. Showy blooms in orange, yellow, red and maroon. Withstands drought, heat.

Perennial Monarch Mixed—Large range of colors.

GEUM (hp)—Culture VII. Cover ½-in. Ht. 2-ft. Flowers like tiny double roses, long stems, prized for cutting.

GYPSOPHILA (hp) (Baby's Breath)

PERENNIALS: Culture VII. Cover ½-in. **Perennial White**—Tiny flowers on slender stems, producing a mist-like effect.

HOLLYHOCK (hp)

Culture VII. Cover seeds ¼-in. Ht. 5 to 8-ft. Succeed best in deep, rich, well-drained soil. Like warm, sunny place. **Indian Spring**—All-America 1939. Semi-double and double fringed pink flowers. Will bloom first season. Pkt. 15c.

Double Mixed—

LINUM (hp) ♦ PERENNIAL: Culture VII. Cover ½-in. Need sun. Ht. 15-in.

Perennial Blue—Light blue, upright flowers in great profusion all summer.

POPPY (hp)

PERENNIALS: Culture VII. Cover ½-in. Grow in almost any soil. Prefer sun.

Iceland Mixed—Blooms first year.

Oriental—Large, showy, delicate silken crimson flowers.

SHASTA DAISY, Alaska (hp)—Culture VII. Cover ½-in. Ht. 2 ft. White single blossoms, 4 to 5-in. across, with small yellow centers, long stems.

SWEET PEA, PERENNIAL (Lathyrus Latifolius) (hp)—Sturdy vine bearing clusters of waxy, handsome flowers.

SWEET WILLIAM (hp) ♦—Culture VII. Cover seeds ½-in. Ht. to 1½-ft. Free-flowering, large heads of bloom. Rich, fine colors. **Single, Double, Mixed.**

WALLFLOWER (hhp)—Culture I. Cover ½-in. Ht. 1½-ft.—A lovely early spring bloomer. Fragrance pleasing, colors startling. **Siberian Mixed.**

Prize Plans for Effective Border Grouping

Cosmos Sensation	Giant Zinnia	Gloome Pink Queen	Helianthus	Cosmos Double Crested	Marigold Giant Yellow Supreme	Larkspur Imperial Blue Bell	Cosmos White	Zinnia California Giants
Ageratum	Gaillardia Goblin	Snap Dragon	Centaurea Blue	Scabiosa Peace	Ageratum Blue Perf.	Phlox Rose	Snapdragon Mixed	Dwarf Marigold
Golden Ring Togetes	Dwarf Ageratum	Cal. Poppy	Alyssum Violet	Little Giant Tagetes	Alyssum White	Petunia Pink Glory	Candytuft White	Brownwallia Blue
							Marigold Spry	Ageratum Blue
								Dimorphotheca Double Hybs.

(Above) A border of annuals. (Below) A perennial border.

Delphinium Pacific Gts.	Perennial Aster	Helianthus Riverston Gem	Delphinium Pacific Gts.	Helianthus Per. Hybs.	Anchusa Drapmore
Hardy Phlox	Coreopsis	Pyrethrum Roseum	Aquilegia	Candidum Lilies	Digitalis Shirley
Arabis White	Allysum Saxatile	Viola	Cerastium Tormantsum	Pyrethrum Roseum Armeria	Shasta Daisy Alaska

IDENTIFICATION CHART of Garden Enemies

Before you can select the proper treatment for insect enemies, you have to identify them. The "Rogues' Gallery" below gives you portraits of just about all those you are likely to encounter. Refer to our Spray Guide Chart (free on request) for proper remedy in each case.



Cutworms



White Grub



Chicken Louse



Mexican Bean Beetle



Rose Mildew



Coddling Moth



Potato Blight



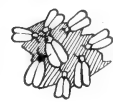
Rose Aphid



Tomato Worm



Potato Bug



White Flies



Sow Bug



Rose Leaf Spot



Rose Midge



Asparagus Beetle



Japanese Beetle



Lace Wing



Potato Flea Beetle



Thrip



Rose Chafer



Mealy Bugs



Orthezia



Slugs



Caterpillar



Leaf Hopper



San Jose Scale



Red Spider



Oyster Shell Scale



Aphid



Tarnish Bug

INSECTICIDES AND FUNGICIDES

ACME ANT-KILL—Most effective for control of all honey-dew loving ants. Eliminates the whole colony. Syrup is sold with only safety cup on the market. Fully covered by U. S. patents. Jr. Set, 35c; 2 oz. bottle, 20c; Cottage Set, 63c; Pint, 75c; Extra Cups, 10c.

ANT TRAPS—Kill both sweets- and grease-eating ants. Effective and lasting.

ARSENATE OF LEAD—Gives quick action in killing leaf-eating insects. It is safe to use on tender foliage, and sticks well to leaves.

BORDEAUX MIXTURE—A standard dry powder fungicide for curing and preventing black rot, mildew, blight and other fungus diseases.

CALCIUM ARSENATE (Dry)—For chewing insects.

CYANOGAS A—Kills ants, rats, moles, fleas, bed bugs, moths, bats, grape mealy bugs, melon aphids, groundhogs, snakes, and insect pests.

CYANOGAS G—For greenhouse, bulb, grain, soil, household, warehouse fumigations.

DAWG-GONE—To protect evergreens and keep dogs away, just hang an opened tube of Dawg-Gone (opening down) in the lower branches of trees at the points of approach. (Not necessary to place tube in every tree unless standing alone.) The odor slowly emanating from the open tube will keep dogs at a distance. Tubes, 25c ea.

GRAFTING WAX—Used for grafting. Also good to rub over wounds made on bark, or in pruning.

LIME SULPHUR DRY (Powder)—For dormant spraying of fruit trees, shade trees and bushes for scale, etc.

NAPHTHALENE FLAKES—Used for repelling soil pests such as wire worms, maggots, moles and certain other insects. Protects bulbs against thrips and white fly.

NICOTINE SULPHATE 40% (Black Leaf 40)—Kills aphids, thrips, leaf hoppers and other insects on garden, farm and orchard crops by contact and fumes. Also kills poultry lice.

PARIS GREEN—A poisonous insecticide in powder form. Gives quick control where extreme measures are necessary.

SEMESAN—For bulbs, roots, flower and vegetable seeds. Disinfects seed against many diseases and helps prevent rotting and damping-off. Also effective in controlling brown patch. One oz. treats 15 to 30 lbs. of seed.

SEMESAN BEL—For seed potatoes. Controls such seed-borne disease organisms as scab, rhizoctonia, and blackleg. Increases standard yield. One lb. treats 60 to 80 bushels.

SULPHUR, DUSTING—Effective for mildew, black spot and rust on a number of shrubs and flowers.

TOBACCO DUST—Kills aphids and flea beetles.

SPRAY GUIDE CHART FREE

For practical help in recognizing garden enemies and knowing how to combat them, use the famous **ACME SPRAY GUIDE**—the "gardener's doctor book." You may have a copy, free, at any time, by writing, phoning, or calling at our store.

EVER GREEN Garden SPRAY

Ever Green Garden Spray is a powerful, odorless, Rotenone-Pyrethrum spray containing soap and a minimum of water. Simple to use. No complicated or confusing instructions. Deadly to many common varieties of both sucking and chewing insects in the home garden—such as aphids (plant lice), leaf tiers, cabbage worms, Mexican bean beetles, and rose slugs. Will not harm the most tender foliage. 1 oz. 35c; 6 oz. \$1.00; 16 oz. \$2.15; gals. \$12.20.



ACME SCIENTIFIC ROSE SPRAY

A "system" of spray treatment for roses and flowers of all kinds. Eliminates guess work. Each set contains three separate items, each scientifically made to combat one of the three major classifications of blight and insect pest. Mix all three. Use regularly for complete all-around protection.

Sizes	Amount of Spray	No. of Roses Protected all season	Prices
No. 3	12 qts.	7 to 12 bushes	\$0.95
No. 6	24 qts.	15 to 25 bushes	1.50
No. 24	96 qts.	60 to 100 bushes	4.00



ACME EMO-NIK

A complete contact insect spray combining nicotine with Emo, a high quality summer oil emulsion for control of Aphis, Mealy Bugs, Red Spider, Thrip, White Flies, Rust, Mites, Mildew, certain scale insects and other garden pests. Available in 4½ oz., pint, quart, and gallon sizes.

ACME APHIS SPRAY

An improved nicotine spray combining a soft soap with Black Leaf 40, suitable for the control of all kinds of aphids (plant lice), thrip, leaf hopper and many more hardy insects infesting rose bushes, flowers, shrubs, vines, bushes, trees. Mixes easily with any kind of water. 3 oz. tube, 35c; 12 oz., 99c; 2½ lb., \$2.35.



ACME WETTABLE DUSTING SULPHUR

(An Excellent Chigger Chaser)

An improved dusting sulphur. Can also be used as a liquid spray. Recommended to control mildew, leaf spot, black spot and rust on rose bushes, chrysanthemums, snapdragons, carnations, and certain other foliage; also red spiders on evergreen. 98% passes through 325 mesh screen. Available in 2 pound sifter carton.

ACME ROTENONE GARDEN GUARD

A safe insecticide dust. Contains no arsenic or fluorine compound. Rotenone is non-injurious to humans and warm-blooded animals, yet effective both by contact and as a stomach poison against insects. Especially recommended for broccoli, cabbage, cauliflower, Brussels sprouts, string beans, currants, and sweet corn; for dusting roses and flower gardens. Controls lice, fleas, and mites on dogs, cats, birds, and chickens. 1 lb. sifter carton, 35c; 6 lb. bag, \$1.05; 50 lb. bag, \$7.85.



ACME RED RIVER POTATO MIX

(Special Formula for Potatoes only.) A scientific development combining a new patented copper fungicide with quick-killing arsenic. Kills potato bugs quicker, drives off flea beetle and leaf-hopper, prevents blight from gaining a foothold, stimulates foliage, making more and better potatoes. Complete control in one operation—at one cost. Use as a dust or spray.

1 lb. bag, 31c

4 lb. bag, 85c

ACME KOPPER QUEEN (Mildew Spray)

A strong liquid copper spray for control of mildew, leaf spot, and black spot on rose bushes, flowers, many other kinds of foliage. Stainless, leaves no unsightly residue. Use as liquid spray replacing Bordeaux Mixture and Sulphur. Available in ½ Pint, Pint, Quart, Gallon sizes.



PET SUPPLIES

Food and supplies for your Dog, Cat, and Birds. Everything to make and keep your pets healthy and happy.

Dog Food—Your dog can't be as healthy, strong, active and happy as he should be if something in his food is missing. Give him a complete food, with the necessary vitamins, digestive enzymes, minerals.

Dog Beds—You will have to come and see these. Several kinds and sizes.

Dog Sweaters—Not only dress up your dog, but will keep him warm. The sizes of Dog Sweaters are determined by measuring the dog from base of neck to base of tail. Assorted colors.

Harness, Leads, Collars, Brushes, Toys—Whatever your dog needs we can supply.

Remedies and Conditioners—We stock nationally advertised supplies, remedies and conditioners, to keep your pets in prime condition.

Bird Foods and Supplies—a complete line.

And lots of helpful information about the care of your pets.

Pest Prevention

One of the best ways to control pests, especially diseases, is by prevention. So sanitary measures, which include prevention, are the first line of defense.

1—Keep weeds down

The good gardener not only keeps weeds out of his beds and rows, but cleans up fence rows and mows adjacent vacant lots that might harbor insects or serve as the host plants of diseases.

2—Keep trash cleaned up

Slugs, mice, rats, caterpillars take refuge under trash, which protects them through the winter.

3—Take out diseased plants at once

Once a plant has become infected with certain diseases, there is no help for it. Let it remain in the bed and it will soon spread. So just as soon as observed, pull up and destroy the diseased plant.

4—Remove diseased parts

Blights and mildew live over winter on fallen leaves and debris of plants. Be sure to remove these in fall.

5—Rotate ground and plants

Diseases that live over in the soil will reinfest plants put in the same ground the next year. So rotate your ground.

6—Fall spading

Spade ground in the fall and let it lie unranked till spring. Sun, wind, cold and birds together will destroy many insects.



SPRAYERS and DUSTERS

The supply of garden sprayers, while still critical, shows some improvement. We hope, therefore, to be able to take care of your needs.

Good spraying equipment is vital to the success of the garden, so we are making every effort to maintain our supplies for you. Consult us on all types of spray equipment:

Compressed Air Tank Sprayers—Open-top or funnel-top; galvanized brass or copper tanks; 2 to 4 gallon sizes.

Wheelbarrow Type Sprayers—Heavy duty portable outfits for orchard, farm and industrial work. 12 gallon or 18 gallon capacity.

Bucket or Barrel Spray Pumps—High pressure equipment for insecticides, whitewash, cold water paints, etc.

Light Weight Hand Sprayers—Handy sprayers of various types, for garden or for household use.

Heavy Duty Dusters—For a wide range of work, in gardens, truck farms, orchards, vineyards, etc. Consult us about the right model for your needs.

Garden Dusters—Various types for light gardening or other light work.



Spray
with

BLACK LEAF 40

Aphis (plant lice), leafhoppers, leaf miners, mealy bugs, lace bugs, most thrips, young sucking bugs and similar insects can be controlled.

An ounce makes 6 gallons of spray effective on aphids. Full directions with package—A quick, sure, economical control for these insect pests.

Just a little spread on roasts kills poultry lice and feather mites.

KILL Crab Grass WITHOUT DESTROYING Lawn Grass ZOTOX



This amazing liquid chemical kills Crab Grass without permanent injury to lawn grasses. A 16 oz. bottle makes 10 gallons and treats 2000 sq. ft. ZOTOX also kills dandelion, plantain, chickweed, spurge and other lawn weeds. Full directions on bottle. Prices: 8 oz. \$1.00; 16 oz. \$1.50; 32 oz. \$2.50; 5 lbs. \$4.50.

Ask for free literature.

TREAT YOUR CUTTINGS
and SEEDS with



the plant hormone powder

This nationally known hormone powder makes cuttings root faster and more successfully. It stimulates seed germination so that rooting is heavier and you get a better stand of seedlings. Endorsed and used by leading growers everywhere. Trial packet 25c — 2 oz. jar \$1.00 — 1 lb. can \$5.00.

The Vitamin-Hormone
Stimulant for Plants



Reduces shock and wilt when plants are moved. Produces earlier maturity on tomatoes, lettuce, celery, peppers, tobacco and cabbage. Used on plants, shrubs and trees it encourages growth and bloom. One teaspoonful of powder makes 10 gallons of solution. Trial packet 25c — 1 oz. can 50c — 3 oz. can \$1.00 — 1 lb. can \$4.00.

FOR

PRIZE RESULTS!

Feed them

Fulton's PLANTABBS

Plantabbs provide rich food in clean, concentrated, easy-to-use TABLET form. Have fine potted plants, exquisite flower boxes, beautiful garden flowers, and prize-winning Victory Garden vegetables. Plantabbs combine the recognized food elements plus Vitamin B₁ in full and sufficient amount. Especially good for roses, bulbs, cuttings and to revive sickly plants. Will not burn the tenderest foliage.

Give Vegetables an Extra Boost!

When your tomato, pea, bean, cabbage and other Victory Garden vegetables are up and out of the ground, begin feeding this "extra boost" of rich food. One tablet to each plant and repeated will give amazing increased yield and earlier maturity.

A Box to Suit Every Need

Box of 36 tablets..... 25c
Box of 90 tablets..... 50c
Box of 240 tablets.....\$1.00
Canister (Victory Garden size)\$2.75



PLANT FOODS

While there are still some war-time restrictions on the manufacture and sale of fertilizers, the situation is greatly improved. This spring there should be plenty of suitable fertilizer for every home garden.

Ask us about it!

Whatever your needs for plant foods may be, consult us about them. We'll see to it, as usual, that your garden and lawn get the food-help they need.

ALUMINUM ULPHATE—A material used in creating acid soils necessary for successful culture of Azaleas, Rhododendrons, and similar plants.

ASHES, HARDWOOD—High pot-ash content. Contains all of the fertilizer elements except nitrogen. Tends to drive away insects.

BONE MEAL—All-purpose fertilizer, rich in the two principal plant foods—nitrogen and phosphoric acid.

HUMUS—One of the best soil conditioners. Makes soil more workable and helps it hold moisture. Not a substitute for fertilizer, but an excellent companion for it. In convenient sized packages.

LIME (Hydrated)—Sweetens sour soil for lawns, and clover. Is used as a reducer and in combination of many insecticides; for whitewash, deodorizing.

MURIATE OF POTASH—Improved Potash. Used liberally for all root crops.

NITRATE OF SODA—Very quick source of nitrogen. Hastens maturity of crops. Should not be applied until plants are well above ground.

PLANTABBS—Clean white odorless plant tablets for indoor or outdoor use, combine high analysis food value with a plentiful supply of Vitamin B-1.

PEAT MOSS—Fine for garden mulch, as it conserves moisture. When incorporated in the soil, it promotes growth and supplies humus, which is very essential for growing plants. Fine winter protection for lawns; also as a mulch on strawberry, perennial beds, roses, evergreens, etc.

SHEEP MANURE—An economical and effective balanced plant food. Excellent for lawns, gardens and general use.

SOIL TEST KITS

Do your own soil testing! Kits are simple, practical, easy to use. Let you determine just how to fertilize and lime for best results. Complete kit, good for 20 individual tests, \$2.00.

SULPHATE OF POTASH—Highly recommended for plants requiring acid soil.

SUPER PHOSPHATE—Aids plant nutrition and assists the plant to assimilate other ingredients. An efficient fertilizer element for lettuce, truck crops, cereal crops, and alfalfa.

TOBACCO STEMS—Used as a mulch for roses, asters, lettuce, etc., and for fumigating plants to kill insects.

ROOTONE—You can help cuttings to root faster by dipping them in the hormone powder, Rootone, before planting. Percentage of successful rooting is increased remarkably by this new treatment.

TRANSPLANTONE—Remarkable new Vitamin-Hormone stimulant effective in reducing transplant shock, and wilt of all kinds of plants or shrubs. Also effective in bringing about earlier maturity

on tomatoes, lettuce, celery, peppers, tobacco and cabbage.

LEGUME INOCULATION—Just as necessary for garden peas and beans, lima beans, sweet peas and lupines as for alfalfa, clover, etc. The nitrogen-gathering bacteria build up the soil, increase your yields. Inoculation is the cheapest form of crop insurance. Packages from the 10c garden size up to 5-bushel size.

GROW HEALTHIER
STURDIER PLANTS



NO FUSS—NO BOTHER—NO ODOR

KEM provides all 11 essential elements plants need for healthy growth—and provides them in liquid form, all ready for the plant to use. That's why KEM gives better results in any kind of soil. In fact—and here's dramatic proof of its effectiveness—KEM even grows plants without soil.

USE IT OUTDOORS FOR

VEGETABLES & FLOWERS Right through the growing season from spring sowing to fall transplanting—feed KEM regularly. Both your Victory vegetables and your prize blooms will thrive on this treatment.

LAWNS Try KEM feeding on those bare and shady places . . . It produces a greener, healthier lawn, whether it's newly-seeded or well-established.

SHRUBS & TREES Often a sickly-looking shrub or tree simply needs more nourishment. Vines, shrubs and trees of all kinds thrive on KEM feeding.

USE IT INDOORS FOR

HOUSE PLANTS Regardless of the condition of the soil in the pot, they'll grow and flourish on KEM feeding alone.

CUT FLOWERS Keep them in a dilute KEM solution. They'll stay beautifully fresh 2 to 4 times longer than in plain water.

SEEDLINGS Soak seeds in KEM before planting—they'll take hold better, sprout sooner, grow faster. Then be sure to feed the seedlings regularly with KEM, both before and after transplanting.

Easy to Use! Economical!

Diluted, the 25c size of KEM makes 3 gallons of ready-prepared plant food; the 50c size makes 8 gallons. It lasts indefinitely—never goes out of solution.

KEM FED PLANTS
ALWAYS THRIVE

10¢-25¢
50¢-1.00

Kemical Corporation
East Paterson, N. J.





Geo. Keller and Sons

Quincy, Illinois

**GET MORE FOOD FROM
YOUR VICTORY GARDEN**

The government is appealing for more VICTORY GARDENS, bigger ones with top yield and quality from every row of produce planted. To achieve this goal, gardeners must use high grade seed...they must supply ample amounts of the right plant foods and they must practice proper cultivation methods.

Gardening is much like manufacturing. Plants are the machines converting plant food in the soil into vegetables for your table. That's why it takes high-grade seed and regular feeding with VIGORO VICTORY GARDEN FERTILIZER to make the most of VICTORY GARDENS. If plant food elements of one kind or another are short in the soil, production of food s-l-o-w-s down and quality becomes inferior.

That's why we recommend feeding every crop in your Victory Garden with VIGORO VICTORY GARDEN FERTILIZER. It is a complete plant food that supplies plants with all of the many plant food elements they require from the soil. Proper feeding is the sure way to a big yield of full flavored vegetables, richer in minerals and nutritional value.

Bring in your gardening plans and let us help you figure your needs. Our stock of seed is still complete and we have a supply of VIGORO VICTORY GARDEN FERTILIZER. If you can, avoid the rush and possible disappointment by getting in this week. We can help you so much more now, than we can when the BIG RUSH is on.

YOUR GARDEN SUPPLY DEALER

**907 Main St.
Phone: 3161**

P.S. We have Vigoro for lawns, flowers, shrubs and trees, too!

GARDEN TOOL DEPARTMENT

At the time this catalog goes to press, there are still many uncertainties about the supply of garden tools. We have naturally done our best to gather an adequate supply of the tools you will need, and will be able to take care of most needs, but cannot promise complete assortments at all times.

HOES



Field or Garden Hoes—Various widths. **Light Weight Hoe**—Especially designed for women.

Square Top (or Onion) Hoe—Very shallow blade.

Steel Scuffle Hoe—A very practical weeder and mulcher.

See us for the best available kinds of hoes.

CULTIVATORS



Adjustable Hand Cultivator—A strong, rugged tool. Fine for plots not large enough to warrant the use of a wheeled cultivator.

Garden Cultivator—5-prong, full length handle. 3-prong, medium long handle.



Midget Cultivator Weeder—Short handle; 3 small prongs.

KNIVES

Best available knives for various garden purposes.

Asparagus Knives. Propagating Knives.

Budding Knives. Pruning Knives.

FORKS



Spading Forks—With wood D-handles. Several styles to choose from; heavy or light.

Spading Fork, Long Handle—Preferred by some gardeners, because the long handle saves stooping.

Manure Forks—With iron D-handle. Six tines or four tines.

HOOKS



Potato Hooks—Bent head, with round tines and 4½-foot selected ash handle.

GRASS HOOKS



Various styles, all with good steel cutting blades and well-balanced design.

SHEARS



The best available shears for various garden purposes.

Grass Shears. Hedge Shears.

Pruning Shears. Lopping Shears.

TROWELS



All available patterns for various garden uses.

SPADES

D-Handle Spade—Light weight, extra quality. Also economy grade.

Long Handle Spade.

RAKES

Garden Rakes—Various styles and sizes; straight or curved, long or short teeth.

Wood Lawn Rake.

Steel Broom Rake—For lawns.

Bamboo Broom Rake—Very light, though durable. Handy for raking leaves, etc.

SHOVELS

Round point or square point, long handle or D-handle.

Floral Shovel—A light shovel, suitable for planting shrubbery, transplanting, digging bulbs, etc.

WEEDERS—Various types of approved weed cutters and pullers. See these handy labor-saving tools.

TURF-EDGERS—Indispensable for keeping lawns neat and trim. Several styles.

GARDEN SUPPLIES



PLANT LABELS AND MARKERS

Garden Labels—the handy, indestructible label that may be marked easily and permanently with a lead pencil.

Wooden Labels—For pots; painted. 4 inch to 12 inch.

Tree Labels.

Heavy Wood Labels—For use outside. Will last for years. Splendid for perennial plants.

PLANT STAKES AND SUPPORTS

Perennials in the flower garden, tomato plants, peas, beans and many other plants need proper supporters.

Tomato or Peony Supports—Made of heavy galvanized wire. 1½ ft. to 6 ft.

Wooden Stakes—Painted or natural. Heavy Grade for Dahlias; Light Grade for smaller plants. 18 inch to 6 foot.

Bamboo Stakes—Painted or natural color. 1½ ft. to 6 ft.



GARDEN GLOVES

Protect your hands—wear gloves in your garden! Canvas or leather, especially suited to garden use.

EARTHENWARE FLOWER POTS—We carry a complete line of earthenware flower pots and flower pot saucers, 2 to 12 inch sizes; also bulb pans.

PLANT TUBS—Strongly made of selected wood, painted; with or without handles.

This page lists only a small portion of the very complete line of garden supplies you will see when you visit our store.

SPRINKLERS AND HOSE NOZZLES—The best available selection.

TREE WOUND PAINT—An antiseptic, penetrating paint to stop tree-bleeding and prevent infection of pruned or damaged portions.

FERTILIZER SPREADERS—Use a spreader to insure proper distribution—broadcasts dry fertilizer and grass seeds close to the ground, quickly, evenly and without waste. Our spreaders are rugged and dependable.

PRESERVING JARS

Clear crystal glass with new self-seal cap that works easily, quickly, and securely. Pint and quart sizes.



REVOLUTIONARY HAND SPRAYER

New HARCO is only professional-type Sprayer priced so low. Long extension rod sprays up, down, sideways—quickly penetrates all hard to reach places—without adjustment. Easy to use. Attractive, colorful. Only \$2.35.

HARCO SPRAYER
A Germaco Product

Save for **VICTORY!** Buy Bonds

Plant for **VICTORY!** Grow Food

KELLER'S PURE LAWN SEED

Best Quality — Highest Germination

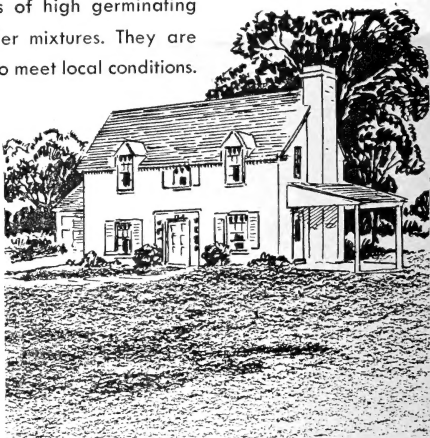
The finest quality of best known grasses of high germinating seed are used as the foundation of Keller mixtures. They are blended and mixed in proper proportions to meet local conditions.

Keller's BEST MIXTURE

This special mixture is proportioned and blended to produce beautiful, permanent lawns. *Highly recommended by lawn authorities for this locality.*

Keller's SHADY LAWN MIXTURE

A very high grade blend of shade-tolerant grasses, skillfully proportioned so that you may get the very best possible results in shady spots.



THE MOST COMPLETE SEED STORE IN ILLINOIS

Keller's Dog Department

Have you visited our dog department? It's the handiest place in town to get Dog Food, Remedies, Beds, Toys and Supplies. Drop in and see us. You will find just about anything you want for your dog.

Garden Accessories

Despite the general situation, you will find that we have a choice assortment of accessories for your garden . . . Bird Baths . . . Sun Dials . . . Gazing Globes and other Garden Pottery . . . and a wide range of many other garden accessories.

Complete Garden Service—AT OUR STORE OR BY MAIL

GEO. KELLER & SONS

HEADQUARTERS FOR GARDEN SUPPLIES

909 MAINE STREET

QUINCY, ILLINOIS